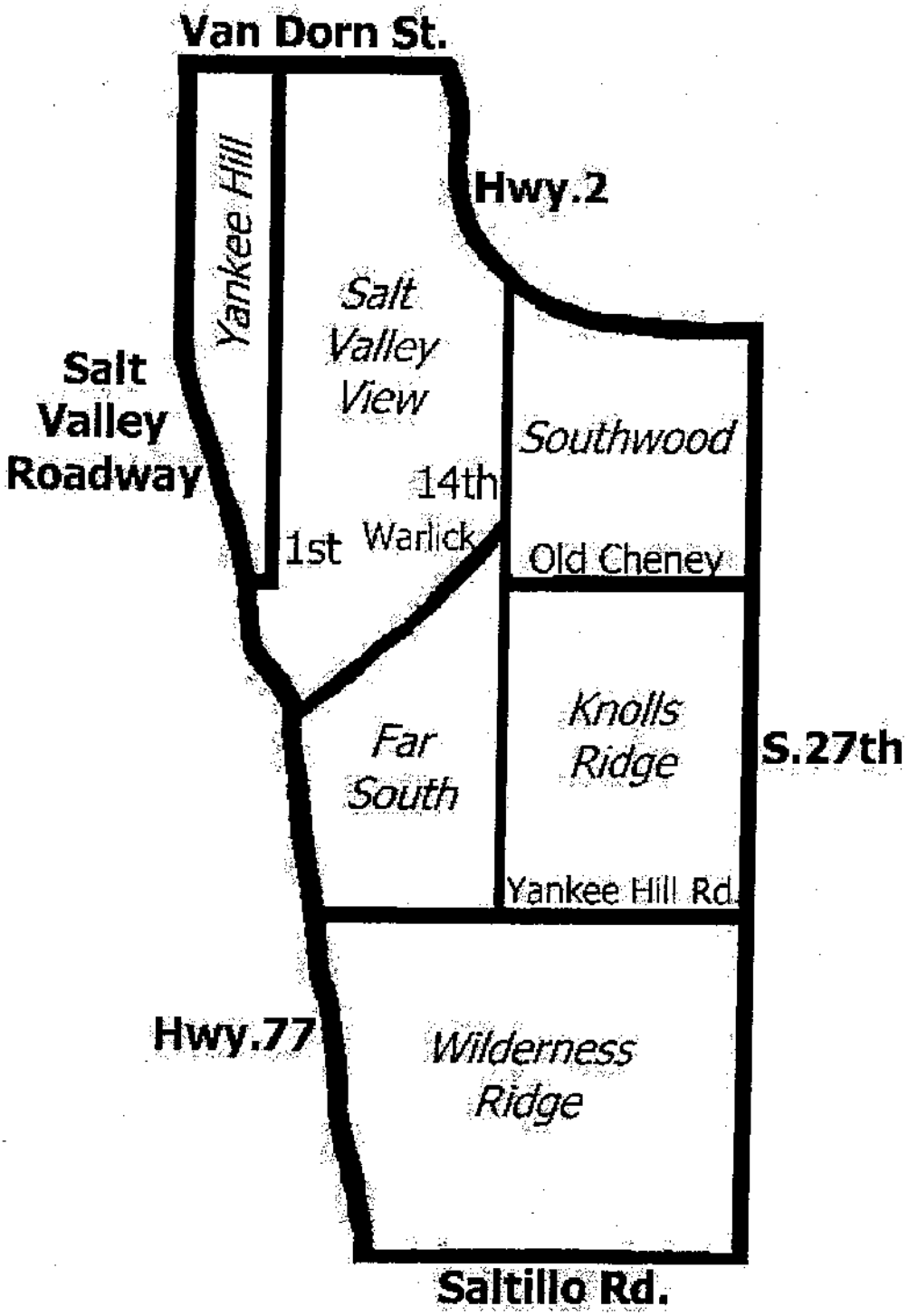
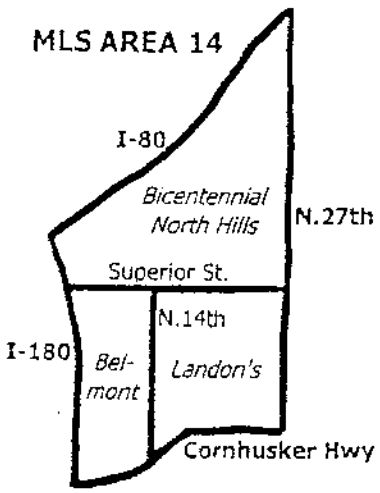
45

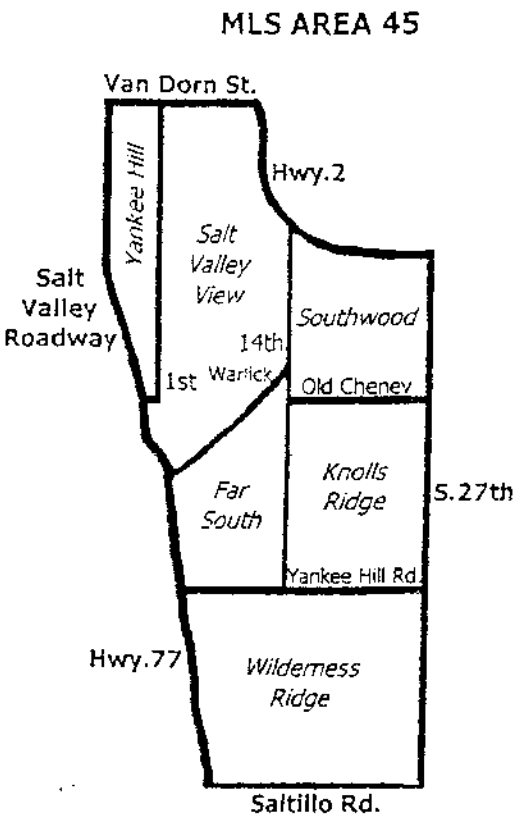

Van Dorn St.
Yankee Hill
Hwy.2
Salt Valley View
Salt Valley Roadway
Southwood
14th
1st
Warlick
Old Cheney
Knolls Ridge
S.27th
Far South
Yankee Hill Rd.
Hwy.77
Wilderness Ridge
Saltillo Rd.

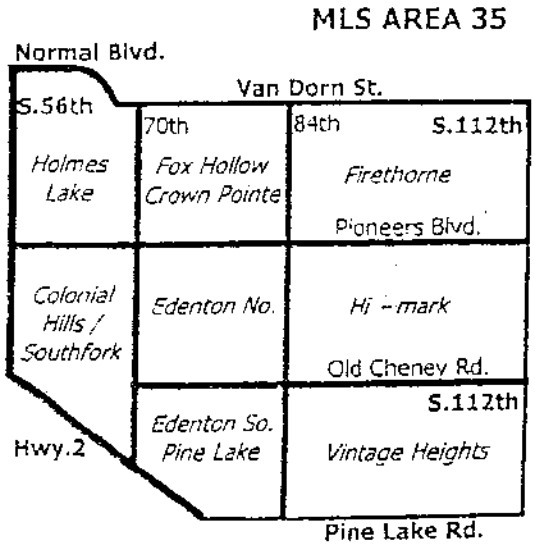
REALTORS® Association of Lincoln
Multiple Listing Service Statistics
for Lot Sales in growth areas
1998 & 2001

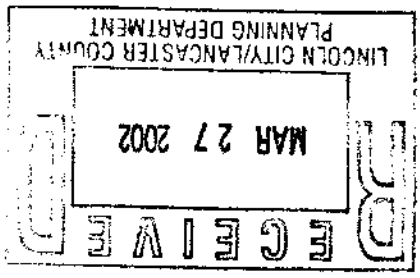
Common Criteria:
Sold (closed sales)
Price: $1,000 - $120,000
Lot: 1-acre or less AND R-1, R-2, or R-3

for Lot Sales in growth areas	Minimum	% Increase Minimum	Maximum	% Increase Maximum	Average	% Increase Average	Median	% Increase Median
Area 14 - 1998	$9,000		$22,500		$19,729		$21,500	
Area 14 - 2001	$19,000	111%	$36,500	62%	$29,448	49%	$32,250	50%
Area 35 - 1998	$20,000		$59,950		$36,522		$36,000	
Area 35 - 2001	$30,600	53%	$75,000	25%	$42,712	17%	$40,500	13%
Area 45 - 1998	$16,200		$50,000		$29,390		$25,000	
Area 45 - 2001	$37,500	131%	$120,000	140%	$68,853	134%	$67,450	170%









Mark Hesser
2111 The Knolls

Members of the Commission:

Thank you for the opportunity to address you today.

I would like to generally mention five adjustments I support being made to the comprehensive plan that other individuals today have, or will, provide much more detail to you. Further I would like to provide more specifics on one area that I feel needs to be addressed.

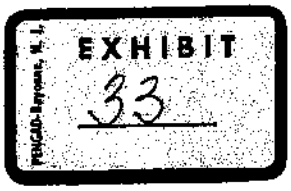
First, in order to have residential lots that are competitively priced, I urge you to increase the amount of land available in Tier 1 of this plan, and in particular, I believe you have to specifically consider more land in Stevens Creek Watershed.

Second, please don't get to carried away with the desire to make Lincoln more dense. The market place has not indicated that it wants this type of development and we cannot dictate the type of property the market place demands.

Third, the amount of land available for development directly affects the price of homes. Housing prices in Lincoln are already higher than many comparable markets. We need more available inventory

Fourth, I urge you to make sure you have adequately addressed the needs of the I-80 corridor between Lincoln and Omaha. Future growth, both commercial and residential will want to go in that direction. Working with Omaha to foster that growth, will be in the best interests of both our communities. At times this may require us to look outside the box on providing infrastructure outside of our immediate city limits and even beyond the three-mile corridor.

Fifth, we need to have more industrial ground designated in the comp plan that is not in or near the flood plain. Outside companies looking to make major investments in Lincoln will not do so in or near a flood plain.



Now for the specific area. We need to address our infrastructure, particularly sewer capacity. In addition to designating more land as available in the comp plan; we need to find a way to increase our infrastructure to accommodate the development in a timely manner. From my experience, sewerabilty has been the primary detriment to land development and the biggest factor in increased land prices.

As a banker who works intensely with land development financing, I can tell you that the existence of competitively priced lots is directly related to the inventory of lots that can be developed. By competitively priced, I mean with other communities. In the past six years, I have seen Lincoln use up a large portion of the supply of developable lots.

When I first started working with land development in Lincoln in 1994, generally, developers could purchase land for less than $15,000 an acre. In less than eight years we have seen that price double to more than $30,000 per acre in some cases.

This is in large part due to the lack of sewerable ground for sale by the landowners on the edge of town. Whoever owns the next parcel of land on a trunk sewer with available capacity can name their price.

We need to find a way to finance large additions to our sewer system. That will provide for competition among existing landowners and allow for lower land prices in my opinion.

A portion of the cost of expanding our infrastructure can be assessed back to the developers, but it is certainly going to have to be considerably less than the $9,000 per residential lot, which has been proposed. At $9,000 per lot you would force Lincoln out of the market. Other revenue sources will need to be looked at including water and sewer rates.

All of Lincoln benefits from growth. Whether it is in the form of enhanced cultural venues such as the Lied Center, or the Children's Museum; or new parks; new recreational opportunities such a new YMCA or a new semi-pro baseball team and Haymarket Park.

All of Lincoln benefits from the growth and must play a part in paying for it. Just like increased tax revenues from growth help pay for our existing infrastructure.

I would be happy to answer any questions you have.

Mark Hesser
2111 The Knolls.

34

Comprehensive Plan Public Hearing 3/27/02

Good afternoon, I am Brian Carstens, wearing two hats today, first of all representing several clients that seem to have the common concerns regarding the Comprehensive Plan as well as representing the Home Builders Association of Lincoln as it's current 1st Vice President.

I am going to focus on three topics

First, lack of available land designated in Tier One of the proposed Comprehensive Plan on page F-30. Many of the areas identified in Tier One are already in the development stage, such as the regional shopping center at 84th and Highway 2, and Stone Bridge Creek at North 27th and I-80. The plan shows numerous acreages in the 56th to 70th and Saltillo Road to Highway 2 area as future urban area. It is unreasonable to assume that all of these acreages will be further subdivided in the 25 year planning period, allowing for typical urban density. As you will hear later, we are recommending that additional land be included within the Tier One area, specifically the western bank of Stevens Creek.

Second, I support eliminating all references to the priority areas as shown on page F32. I do understand the rational behind the priority areas, but the associated language in the plan is not easy to digest. It basically states that projects in specific directional growth areas should not commence in tier 2, until all infrastructure in tier 1 is completed. This is another policy that is unreasonable, as it will hold up areas of development in Tier 2 due to the fact that someone that owns property in Tier 1 does not want to develop their land at this time. Someone that is sitting on a 20 acre parcel can control timing of Tier 2.

Third, Acreage Development in the 3 mile jurisdiction, as well as all of Lancaster County. The current draft of the comprehensive plan states that no acreages should be permitted within the 3 mile jurisdiction. I do recognize the difficulties with the process of annexation of current acreage developments as the city expands into these areas. The idea of Build Through acreage developments should be used in these areas. This would include proper right of way widths for roadways, proper utility easements for future extension of city sewer and water. Tighter building envelopes that would allow for future subdivision of the lots. AND Notification of property owners as they purchase lots of potential and eventual annexation. A city policy needs to be drafted for annexation of new acreage developments. This language could be incorporated into subdivision agreements or conditions of a special permit or preliminary plat. Staff seems to always point to SunRise Estates as a project that did not work as originally conceived. I think we can learn form that project and build new regulations to prevent that from happening again.

All land that is zoned AG in Lancaster County should be treated equally as far as density is concerned. We have plenty of mechanisms in the current subdivision regulations, Lancaster County health department rules as well as the Nebraska Department of Environmental Quality requirements to assure proper potable water supply and treatment of waste water. If water can not be provided, the subdivision should not be approved. That has always been the case, and should remain.

I will be happy to answer any questions that you have

Thank you

LANCASTER COUNTY
BOARD OF COMMISSIONERS

COUNTY-CITY BUILDING
555 South 10th Street, Room 110
Lincoln, Nebraska 68508
Phone: (402) 441-7447
Fax: (402) 441-6301
E-mail: commish@co.lancaster.ne.us

March 26, 2002

Greg Schwinn, Chair
Planning Commission
3707 Timberline Court
Lincoln, NE 68506

Dear Chair:

The County Board of Commissioners has been carefully following the development of the Year 2025 Comprehensive Plan. On several occasions the County Board has discussed various issues related to the Plan at Board meetings, with particular emphasis on the rural aspects of the Plan. Based on these discussions, the Board has been able to articulate a number of concepts which may prove helpful to the Planning Commission in its formulation of a final recommendation on the Comprehensive Plan. In the spirit of mutual cooperation and dialogue, the County Board respectfully submits the following suggestions for your consideration.

Acreage Development

In 1979 the Lancaster County Zoning Regulations were amended to require a minimum lot size of 20 acres for a residence located in the Agricultural (AG) zoning district. The purpose of the Twenty Acre Rule was to preserve farm land and prevent urban sprawl in the rural areas of the County. This rule has been useful in meeting these objectives, but it has also resulted in a number of unforeseen problems. Moreover, it has proven to be too inflexible in addressing unusual land use situations. In some instances the Twenty Acre Rule has actually contributed to the inefficient use of farm land and County infrastructure.

The County Board believes a density of 20 acres per residence should be retained in the AG zoning district throughout the entire County. However, the Twenty Acre Rule should be modified through incentives and options to make it more effective in meeting the objectives of preservation of farm land and better utilization of community resources. The Board offers the following examples:

- Retain the right to split by 20 acre parcels;
- Allow landowners the right to divide 3-acre lots with a 1/20 density on a minimum 40 acre parcel with appropriate conditions and administrative review;
- Reduce the area required for a community unit plan from 75 to 40 acres;
- Continue to offer a density bonus for clustering of residential lots;
- Retain exceptions, i.e., one-half of a quarter of a quarter, and inclusion of road right-of-way in lot area.

There are a number of options for implementing this strategy, and the details should be worked out in the County's zoning regulations.

EXHIBIT 34A

The County Board is also concerned with the proposed restrictions on acreages in the City's Three Mile Zoning Jurisdiction. A consequence of such limitations would be the proliferation of acreage development in the rural areas of the County, which contradicts the right to farm statements in the Plan. In turn, additional pressure would be created on services ranging from fire protection to road maintenance. Instead, the Board requests the Planning Commission to consider language in the Comprehensive Plan which recognizes a difference between rural acreages and urban acreages. The reason for making this distinction is to create conditions and requirements for acreage development near the City which make them more compatible with urban build-through. Specifically, the Board would suggest the inclusion of a definition for an urban acreage on p. F29 of the Draft which is now before you.

A final point on acreage development deals with the following statement, "Specific areas will be designated so that up to six percent of the total population in the County can be accommodated on acreages." See p. F19. The Board recognizes six percent is the historical trend for the number of County residents living on acreages, and this fact should be recognized in the Plan. However, language should acknowledge the amount of population for acreages might be more or less than six percent.

Stevens Creek

During the past two years the County Board and the City Council joined together in directing the Planning Department to prepare a subarea plan for the Stevens Creek Basin. The City Council and County Board are of the opinion Stevens Creek will be subject to tremendous pressure for development. Consequently, this area will become critically important to the future of our community. The County Board believes the Plan should contain language which reflects the importance of the Stevens Creek Basin to the development of the City and County and reflect the planning guidelines created through the Stevens Creek Initiative.

Additional Technical Information

The County Board has identified several areas in the Draft which can be augmented with additional information about County resources:

- Under the topic of Street Maintenance, p. E47, a list of the following County Engineer facilities should be included after the information on City facilities. (Get list from Engineer);
- Under Other Public Buildings and Facilities, p. E73, include Trabert Hall, and the Lancaster County Events Center should be listed as the Lancaster County Agricultural Society Events Center;
- Under Public Transportation Services, p.E56-57, information should be added about Lancaster County Rural Transit. This program is operated through the Lincoln Area on Aging Department;
- Under Lancaster County Parks and Recreational Services, p.E75, add at the end of the second sentence, "...and Interstate Park located along I-180.";
- Under Capital Improvement Program (CIP), p. E91, a paragraph should be added to reflect the County's One and Six Year Road and Bridge Improvement Program;
- Under The Economic Starting Line, p. F9, information should be included regarding the importance of agriculture to our community;
- Under Wastewater Services, p. F80-81, information should be included regarding standards for individual wastewater systems and the role played by the Lincoln Lancaster County Health Department in enforcing these standards;
- Under Information Technology, subheading Strategies, p. F126, the second bullet point should be amended to include rural; and
- Under Regional Economic Dynamics section on page F11, make reference to I-80 Corridor Study.

Other Issues

Finally, the County Board has discussed a few areas in the Plan where technical language changes might be appropriate:

- Under Development in Lancaster County, Outside of Lincoln, p.F51, the Board would suggest replacing the first sentence of the last paragraph with the following language, "Continue to encourage and permit accessory home businesses and explore options ~~to permit an additional outside employee on the premises~~ to assist in the expansion of home occupations.";
- Under The Greenprint Challenge: Implementation Strategies, subheading Native Prairies and Grasslands, p. F61, the County Board proposes removing references to "smoke buffers" and "smoke easements". The Board is concerned that such concepts may adversely affect the existing rights of farmers to utilize burning as a land management tool. However, the Board has expressed support for the concept of notifying adjacent neighbors that periodic burning will be used to manage natural prairies and grasslands;
- Request review of the sufficiency of allocation of land for Tier I: if the public perception is that there is insufficient land designated it may accelerate pressures on Lancaster County when resources are limited;
- Review priority system: completion of one priority before embarking on another is an artificial benchmark failing to incorporate community interest;
- As the planning process proceeds, request cross referencing between human services planning efforts and land use planning where appropriate (p. F151);
- Update/revise 1987 County zoning policy with a "point"/matrix system (p. F77);
- Remove reference to Wildrose Lane Study and replace with a study of an interchange at N.W. 12th and Highway 34 (p. F104 and F110); and
- Replace "Wilderness Park" and "parkland" with "greenway corridor" on pages F20 and F62.

In conclusion, the County Board thanks the Planning Commission for considering our perspective. The Board would also like to express its gratitude to all members of the Lincoln and Lancaster County community who have generously given their time and energy to the development of the Draft 2025 Comprehensive Plan. Please don't hesitate to contact us if you have any questions regarding the content of this letter.

Sincerely,

Bob Workman, Chairman

Bernie Heier, Vice Chair

Kathy Campbell

Larry Hudkins

Ray Stevens

LANCOMM.CB

35 from LSA Associat 1/9/02

System-level Analysis of the Wilderness Park Crossing at Yankee Hill Road

As part of the development of the 2025 Long Range Transportation Plan for the City of Lincoln and Lancaster County, a continuation of Yankee Hill Road across Wilderness Park was considered among several alternative roadway improvements throughout the region. Growth projections through 2025 in the southwest portion of the City highlight the need to review roadway levels of service in the area and access between the southwest and other parts of the region.

Although concerns about environmental impacts, costs related to construction and possibly legal challenges, and other issues have been brought forward through the Plan's development process, this analysis simply looks at the need for a Yankee Hill crossing to accommodate traffic generated by the projected growth at the citywide, or system, level. Other potential benefits, including economic development opportunities, were not considered in this analysis.

Roadway Level of Service

In its simplest form, roadway level of service (LOS) can be compared to a grading scale from "A" to "F", where "A" is excellent and "F" indicates failure. Level of service was calculated for this analysis as a mathematical function that considers the roadway carrying capacity, amount of traffic, and the speed at which the traffic is moving during rush hour.

In 1998, the most recent year for which detailed LOS data is available, virtually all of the roads in the southwest portion of the city exhibit good levels of service. This includes US77, the current east-west and north-south crossings of the park that currently exist, and other roads in the vicinity. In fact, virtually all of the traffic congestion in 1998 is confined to the arterials in the older, core area of Lincoln.

As the region grows and more housing and jobs begin to locate in the southwest quadrant, traffic volumes and congestion will increase. The region's Comprehensive Plan Committee has approved a draft 2025 land use plan that will add a fair amount of socioeconomic growth to the southwest area, generally bounded by I-80 to the north and US77 to the east. Much of the growth planned in this area through 2025 will be to the north of Yankee Hill Road.

This system-level analysis for the year 2025 is based on anticipated growth and a roadway network that includes the existing roadway system with additional committed projects added to it. Committed projects are those currently under development and funded through the region's current 6-year transportation improvement program. It is likely that additional roadway improvements will be made in the 2025 timeframe, but they still need to be determined through the Plan's development process. As such, the Existing and Committed network provides a reasonable basis for level of service comparisons.

Based on results from the Lincoln Regional Travel Model, level of service on the Existing and Committed network in the year 2025 is generally good in the vicinity of the Yankee Hill crossing at Wilderness Park. Some of the roads closer to the Highway 2/US77 interchange area show elevated levels of service. Wilderness Park crossings on Pioneers and Old Cheney are becoming congested under this scenario. However, the Warlick Blvd. crossing does not appear to experience any congestion. Since the growth and related traffic congestion are north of Yankee Hill, a new crossing at this location may not provide much additional traffic congestion relief to those more congested roads.

EXHIBIT 35

Yankee Hill Crossing Alternatives

The Mobility and Transportation Task Force reviewed four alternatives related to the Yankee Hill crossing of Wilderness Park:

- Option 1 - an elevated structure extending Yankee Hill Road over Wilderness Park between South 14th Street and South 1st Street;
- Option 2 - Option 1 with closures at the Old Cheney and 14th Street crossings of the park;
- Option 3 - Option 2 with an additional closure at the Pioneers crossing; and
- Option 4 - Option 2 with an interchange at Yankee Hill and US77.

Results of the Analysis

Each of the Yankee Hill crossing options were tested in the Lincoln Regional Traffic Model for their ability to reduce vehicle miles of travel and delay associated with congestion. Option 1 showed a relatively small benefit in reducing vehicle miles and congestion delay when compared to the no-build scenario. This is likely due to the additional access provided to some travelers to and from the southwest area of the City. Without the improvement, these travelers would need to take a different route, resulting in slightly more circuity on facilities with more congestion. Again, the relative benefits are very small.

The other options, the ones that involve a US77 interchange with Yankee Hill and removal of existing park crossings, exhibited increased delay when compared to the no-build scenario. In other words, the removal of existing crossings more than eliminates any travel time savings derived from the Yankee Hill overpass.

Conclusions

Given the high cost of implementing a new Yankee Hill crossing over Wilderness Park and the relatively small amount of congestion delay and vehicle mile savings, the project appears to have limited benefits and would likely score poorly in terms of congestion reduction and cost effectiveness when compared with other, more beneficial projects across the City. In addition, the roadway system in the southwest quadrant generally provides sufficient capacity and access to serve the travel demand in the area through the year 2025. While some additional improvements to the roadway network in the area will be necessary to accommodate new growth, the Yankee Hill overpass appears to have only a small ability to alleviate the congestion on these facilities.

If the City decides to proceed with a Yankee Hill crossing of Wilderness Park, the effects of closing existing crossings should be carefully studied. Based on this system-level analysis, the elimination of the existing crossings will negate any benefit derived from the new crossing.

As growth in the southwest area continues beyond 2025, it may be prudent to revisit the need for a Yankee Hill crossing or other potential roadway improvements to handle the increase in traffic congestion.

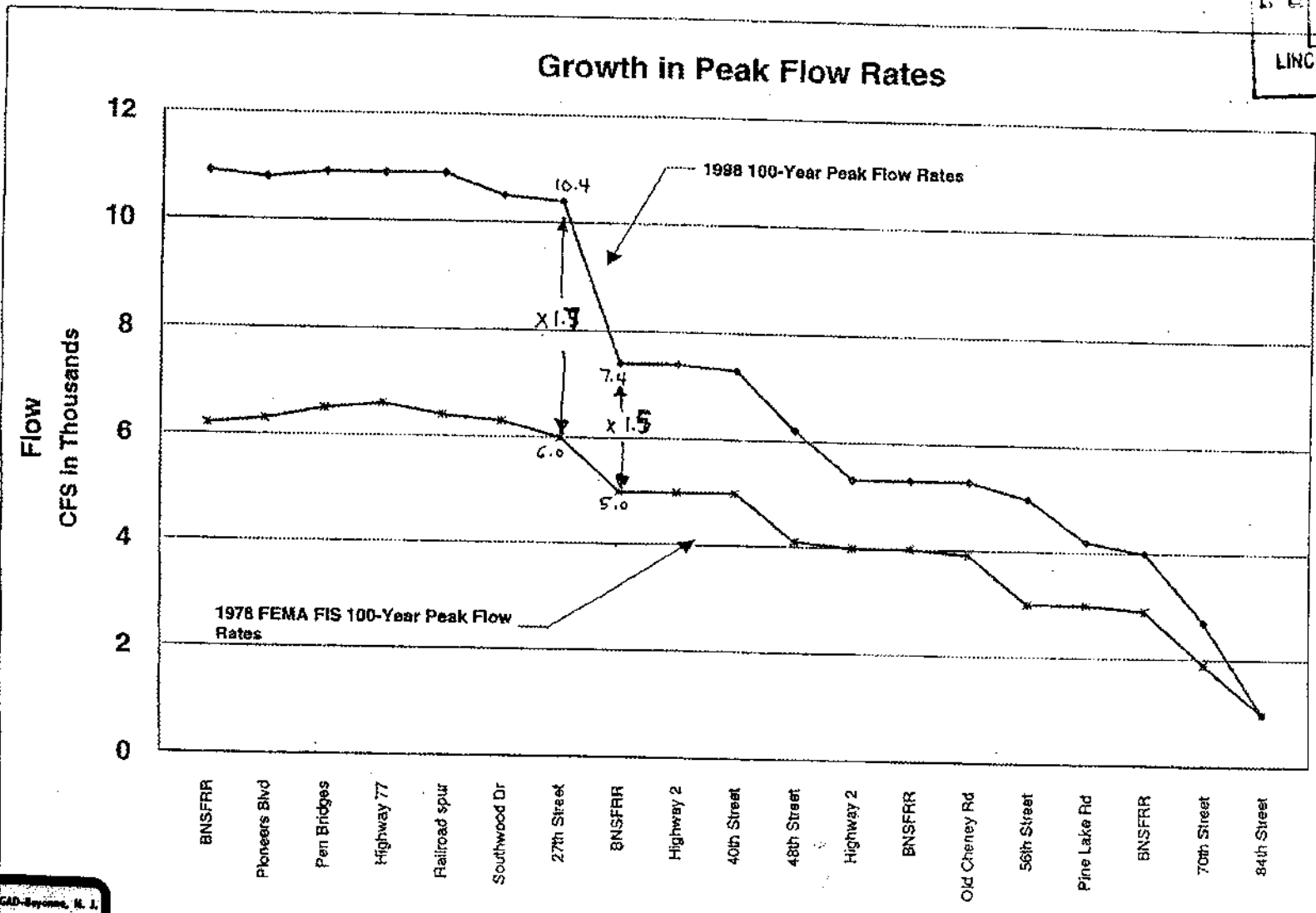


FIGURE ES-3

Olsson Assoc & Wright Water Engineers
1999

EXHIBIT

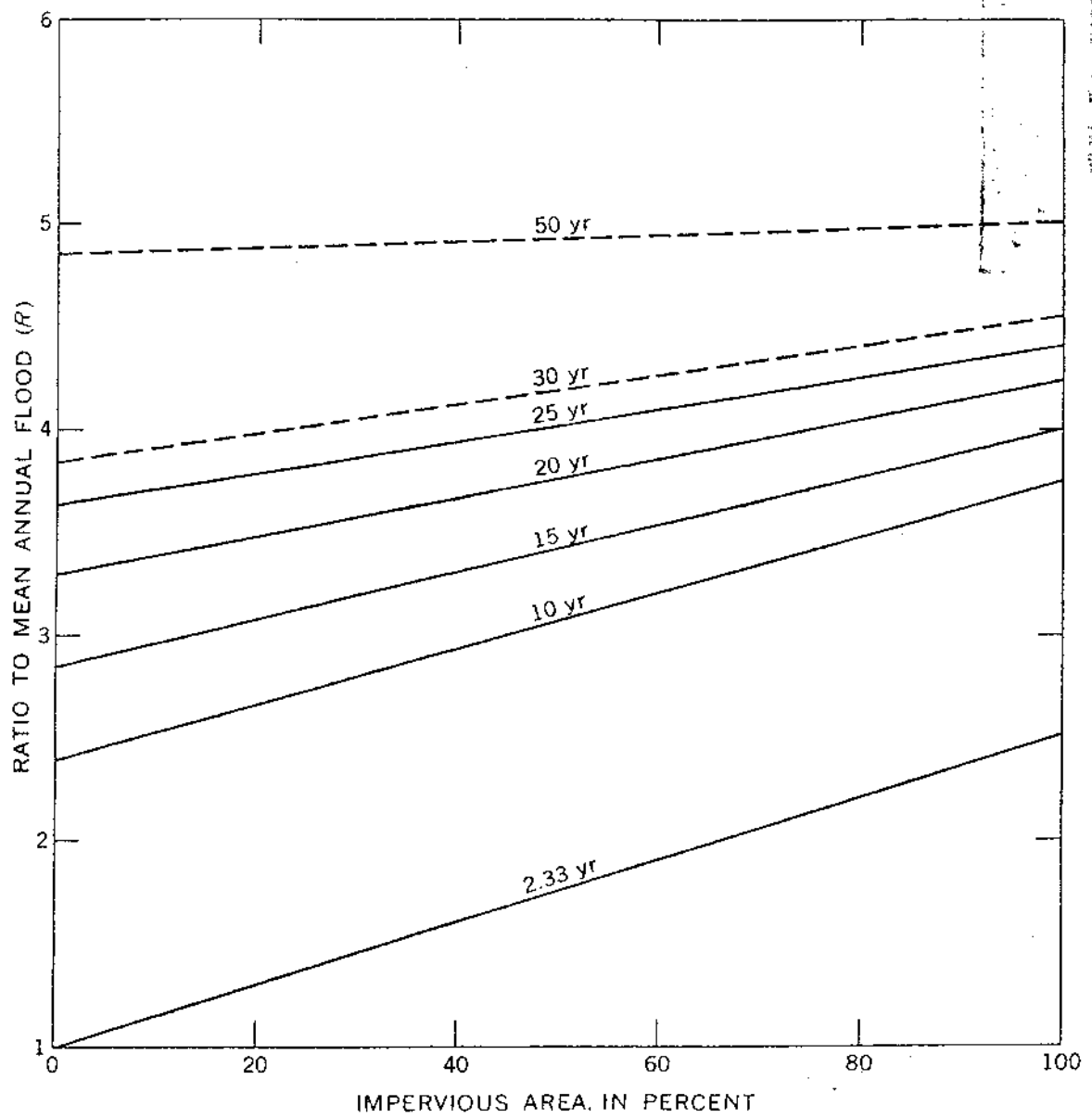


FIGURE 8.—Graph showing variation of flood-frequency ratio with percent of impervious area.

from

Martens, Lawrence A., 1968

"Flood Inudation and Effects of Urbanization in Metropolitan Charlotte, North Carolina" in

HYDROLOGIC EFFECTS OF URBAN GROWTH

U.S. Geological Survey Water-Supply Paper 1591-C

Business in Nebraska

Volume 57, No. 663 presented by Bureau of Business Research (BBR) January 2002

Who's Moving to Nebraska?

Charles Lamphear

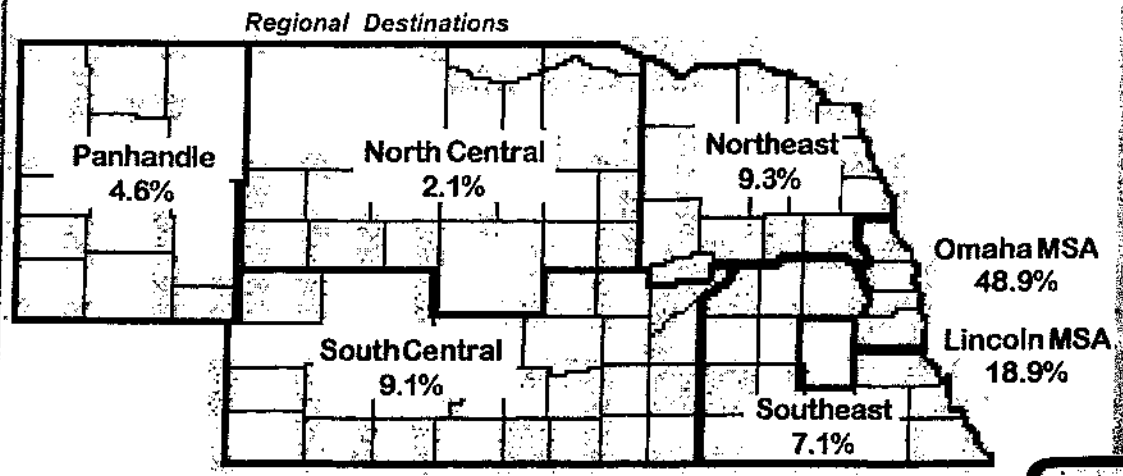
A survey of recent migrants to Nebraska revealed that about one-third were single. Nearly half of them were born here or previously had lived in Nebraska. Most were in their mid-fifties, and most moved to the state to be close to family.

The remaining two-thirds of the recent arrivals surveyed were couples. Like singles, most were either born in Nebraska or had lived in the state. Their most frequently cited reason for moving back to Nebraska also was to be close to family.

In general, the survey showed that nearly all migrants had a Nebraska connection by previously living in the state and/or by currently having family members who do live here.

This survey is the counterpart to an earlier survey on out-migrants that was published in the February 2001 issue of *Business in Nebraska*. Like the earlier survey on out-migrants, this survey included individuals who recently changed voter registration from another state to Nebraska. The Nebraska Secretary of State's office is notified when a

Figure 1
Origins/Destinations of In-Migrants



States of Origin	
Nearby States	
Colorado	16.9%
Iowa	14.3%
South Dakota	7.9%
Kansas	7.7%
Wyoming	5.3%
Missouri	3.3%
Minnesota	3.3%
Distant States	
California	4.2%
Texas	3.7%
Arizona	2.9%
Illinois	2.6%
New York	1.8%

voter reregisters in another voting district. A sample of 545 recent re-registrants was drawn and about 25 percent responded to a survey that focused on their reasons for moving to Nebraska.

Also, like the earlier survey, the in-migrant survey did not represent a scientific sample, since it likely did not represent all in-migrants, only registered voters. However, the results still are meaningful, because they provide insights as to why people move to Nebraska.

Almost 60 percent of all respondents came from nearby states, mostly Colorado and Iowa. The rest came from more distant states, California and Texas, for the most part.

About two-thirds moved to the state's metro regions, the Omaha and Lincoln MSAs. Thirty-eight percent moved to Douglas County, alone. The major nonmetro destination counties were Lincoln, Madison, and Platte Counties with 2 percent each. The fewest number (percent) moved to the state's North Central region (Figure 1, *page 1*).

Singles

Nearly three-fourths of the single respondents were women. The average age of the single migrants was 55. Forty percent were at least 65, and 15 percent were under 25 (Figure 2). Most had attended college. Nearly 40 percent had earned at least a Bachelor's degree (Table 1).

Forty-five percent of the single respondents were either retired or were not seeking employment. An equal percentage was employed full- or part-time, and about 10 percent were unemployed but seeking work. For those employed, approximately 65 percent had accepted their new jobs prior to their moves. The remaining 35 percent moved to the state because of job transfers.

About two-thirds of those who work indicated that they were employed in professional jobs. The rest indicated that they were employed in vocational jobs.

One-forth of the working respondents indicated that their current Nebraska jobs are with larger companies than that of their previous employers and an equal proportion indicated that their current employers pay higher salaries, provide better benefits, and offer greater career opportunities. The remaining 75 percent indicated the opposite situation.

Figure 2
Age Distribution of Single In-Migrants

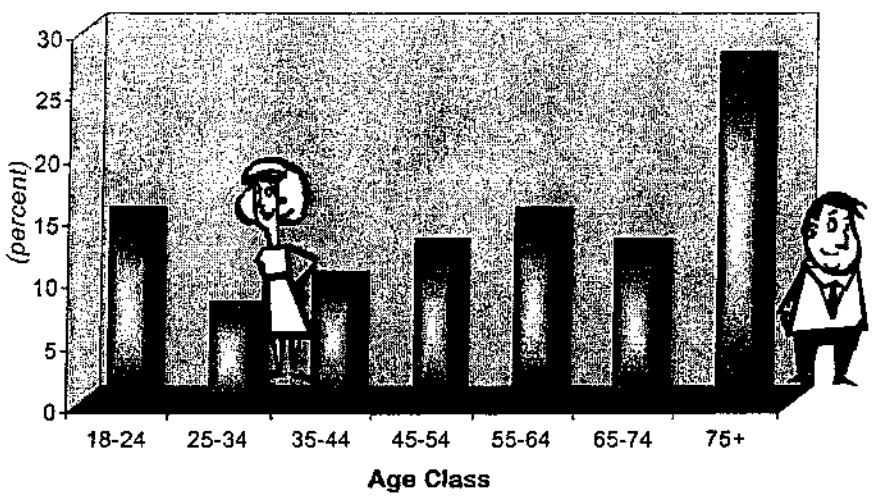


Table 1
Educational Attainment of Single In-Migrants

	(percent)
Less than 9th Grade	0.0
9-12th Grade, No Diploma	7.9
High School Graduate	7.9
Some College, No Degree	28.9
Associate's Degree	15.8
Bachelor's Degree	28.9
Master's Degree	7.9
PhD, Professional (DDS, JD, RP) Degree	2.7

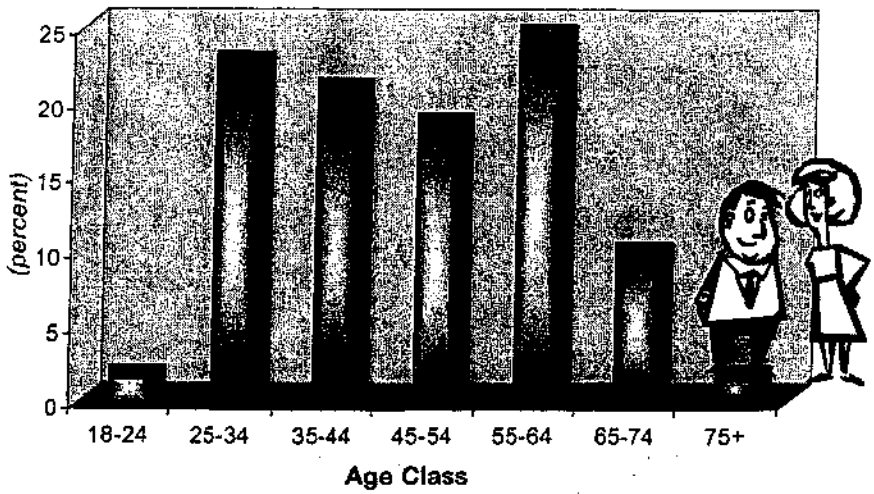
The average income for all single respondents was approximately $28,500. None reported an annual income above $80,000, but about 43 percent reported annual incomes below $20,000. Most with incomes under $20,000 were retired and living on fixed incomes.

More than a fourth of the single respondents cited proximity to family as their primary reasons for moving to Nebraska. Housing factors-availability, quality, and cost-also ranked high. A significant number cited safety as an important consideration. All in all, though, family ties dominated all other factors, and in almost all cases other factors cited were associated with proximity to family.

Couples

The average age for couples (respondents and spouses) was 48. Only 12 percent were over 65, substantially below the percentage for singles. Less than 2 percent were younger than 25 (Figure 3).

Figure 3
Age Distribution of In-Migrant Couples (both respondents and spouses)

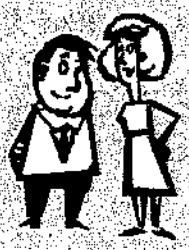


The average household size was 3.1. About 13 percent of the households reported five or more members. Slightly over 50 percent reported members under 18. Seventy-three percent of the respondents and spouses had attended college. Forty-five percent had earned at least a Bachelor's degree. Less than 1 percent had less than a ninth grade education (Table 2).

The survey generally showed that migrant couples are working couples, who secured their new jobs before moving. Only a small fraction represented job transfer. Including self-employment, 69 percent of the respondents and spouses were employed full- or part-time. Less than 2 percent indicated that they were unemployed and seeking work. About 11 percent indicated that they were unemployed but not seeking work, and about 19 percent indicated that they were retired. About 88 percent of the jobs were in the professional occupations. The remainder were in the vocational and blue-collar occupations. Most of those employed learned of Nebraska job opportunities through friends and relatives. Less than 2 percent obtained Nebraska job information through the media.

Table 2
Educational Attainment of In-Migrant Couples
(both respondents and spouses)

	(percent)
Less than 9th Grade	0.6
9-12th Grade, No Diploma	4.2
High School Graduate	22.6
Some College, No Degree	25.6
Associate's Degree	1.8
Bachelor's Degree	32.1
Master's Degree	7.7
PhD, Professional (DDS, JD, RP) Degree	5.4



The combined averaged income of the respondents and spouses was $50,600. Less than 8 percent reported annual incomes below $20,000, and nearly 15 percent reported incomes over $80,000.

Like the singles, about three-fourths of the respondents and spouses indicated that their new jobs were with firms that were smaller, or no larger than their previous firms. About 80 percent indicated that their new job benefits were about the same, or less. Appproximately 79 percent indicated that their salary was the same or less. Finally, nearly one-third indicated fewer career opportunities with their new jobs. Since their new jobs generally did not measure up to the jobs that they left behind, why did they move to Nebraska?

A fourth of the respondents indicated that proximity to family was the primary reason for moving to Nebraska. About equally important was housing—availability, quality, and cost. Safety and lower crime rates also were cited as important reasons for coming to the state, especially for those who chose to locate in the state's rural communities. Job and business opportunities were not listed as primary reasons for moving to Nebraska.

Conclusion

The most salient observation from the survey is that former Nebraskans are coming home. Almost all who responded to the survey had a connection to the state. That connection was family and/or previous residence here. For those still working, job opportunities were secondary. Housing factors also played an important role in their decisions to move to the state, but in most cases, housing was linked to their desire to be close to family. Others who were not former residents of Nebraska at least were somewhat familiar with the state, since most came from neighboring states.

TO: The Honorable Members of the City-County Planning Commission

FROM: Pace Woods

I have been in the business of land development for the last 42 years with many of the additions offering moderately priced lots with one of the latest being Salt Valley View. My current additions in Rolling Hills due to raw land prices and other factors have resulted in higher priced home sites. Through this entire period of time, scarcity of home sites in Lincoln has been one of the main factors which has driven up lot prices in our community. The claim that fill-in lots in older areas will solve this problem has never adequately addressed this growing concern.

I can only speak from experience but failure to offer a supply of adequate raw land for development has forced the purchase of selective areas for growth at the edges of our City at inflated prices. This cost is ultimately passed on to the consumer.

Now I understand there is a proposal for priority areas. If I understand it correctly, Priority One must be filled before the public is allowed to live in Priority Two. This is the old and failed philosophy.

I want you to know that I have no ax to grind here. I own no unplatted land in either the proposed ~~Priority~~ Tier One or ~~Priority~~ Tier Two, or any land outside of these areas. My concern is that a policy of restriction will seriously damage the continuing ability to offer the public all levels of housing types including affordably priced housing. It will radically erode our tax base and prevent us from meeting the goals, obligations and dreams that our City fathers have promised us and already set into motion.

Very simply put, without a growing tax base, how are we going to meet our obligations to supply funding for the Antelope Valley project and the South and East Bypasses, as well as other critical city services. Constraining the projects which can assure the success of our future is not the blueprint for a successful community.

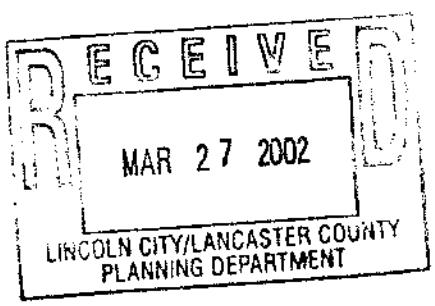
Pace Woods

30

COMPREHENSIVE PLAN AMENDMENTS

Submitted on behalf of
Home Builders Association of Lincoln
and
Realtors Association of Lincoln

1. PRIORITY AREA DESIGNATIONS: Beginning at the middle of page F31, with the heading "PRIORITY AREA PLAN FOR TIER I", strike all language through the end of page F31, all of pages F32 (including map), F33, F34 (including map), and from the tope of page F35 to the heading "SUBAREA PLANNING PROCESS.



COMPREHENSIVE PLAN AMENDMENTS

Submitted on behalf of
Home Builders Association of Lincoln
and
Realtors Association of Lincoln

2. TIER I AREA:

A) Expand Tier I in Stevens Creek by adding sub-basin W-D, W-E, W-F, and the north half of sub-basin E-A per attached map.

(B) Expand Tier I to the north by adding the portion of sub-basin N-2 shown in Tier II in the draft plan.

C) Add symbols indicating new proposed commercial/industrial centers at Highway 77 and South Bypass, Highway 2 and South Bypass, 98th and Highway 6, and Highway 77 and I-80.

D) Add new text on page F35 at the end of the section entitled "SUBAREA PLANNING PROCESS" as follows:

> The work of the Stevens Creek Basin Initiative Task Force, in its recommended Planning Guidelines and the accompanying Summary Report are incorporated herein by reference and should form the basis for further planning in the Stevens Creek Basin.

E) Add new text on page F79 at the end of the section entitled "Overall Guiding Principles" as follows:

> Planning and construction of utilities should be sized to accommodate service to all developable land in each watershed in Tier I, whether the entire watershed is planned for urbanization in the current planning period or the longer term future.

COMPREHENSIVE PLAN AMENDMENTS

Submitted on behalf of
Home Builders Association of Lincoln
and
Realtors Association of Lincoln

3. ACREAGE DEVELOPMENT

A) On page F72, beginning at the middle of the page with the paragraph which starts "New acreage development," strike all language through the end of page F72, all of page F73 (including map), and page F74 down to the heading "Strategies for new and Existing Urban neighborhoods," and substitute the following:

Those low density residential areas within the Future Urban Area, and within the Lincoln City Limits, should be designed to become incorporated into the City and should have expectations of meeting future city estate standards. This has been generically referred to as "build through," a regulatory scheme which would assure smooth annexation and assimilation of low density areas into the City as growth encompasses areas which are presently rural in character. Regulatory policies should encourage protection of acreage character and location of development in high amenity areas which will not block Lincoln's orderly urban development.

Low density rural areas beyond the Future Urban Area should be designed to be compatible with the agricultural character and rural lifestyles of the area. The rural acreage is that exurban or rural non-farm single family residential development occurring on parcels of under 20 acres and usually providing its own water (well) and/or waste water (septic) system. Many of these acreages in the southeast corner of the county are on rural water districts.

Currently this low-density rural residential land use type is located throughout the county. This development style does become more prominent in proximity to Lincoln with large areas of it clustered along South 56th Street, southwest of Lincoln, north and south of Pioneers Park, and around Pawnee and Conestoga lakes west of Lincoln.

This plan recognizes the continuing desire to accommodate this style of life, to protect this character of development where appropriate, and to manage its location. In making decisions about where this land use is appropriate, public officials will use criteria such as compatibility of this land use with farming and other land uses, maintenance of rural character, preservation of ecologically sensitive areas, and the economic and efficient provision of public services and infrastructure.

The low density, acreage residential use is anticipated to continue to grow at least as fast as the overall City and County Growth.

Low density residential areas may be appropriate within the Lincoln city limits if appropriate agreements are reached for the provision of services and improvements.

Zoning and subdivision requests for acreage development should be judged by the general criteria set forth above and their adherence to the "build through" standards adopted by the City.

COMPREHENSIVE PLAN AMENDMENTS

Submitted on behalf of
Home Builders Association of Lincoln
and
Realtors Association of Lincoln

4. Throughout the Plan, wherever the phrase "right to farm" appears, substitute in lieu thereof the phrase "property rights of agricultural landowners."

COMPREHENSIVE PLAN AMENDMENTS

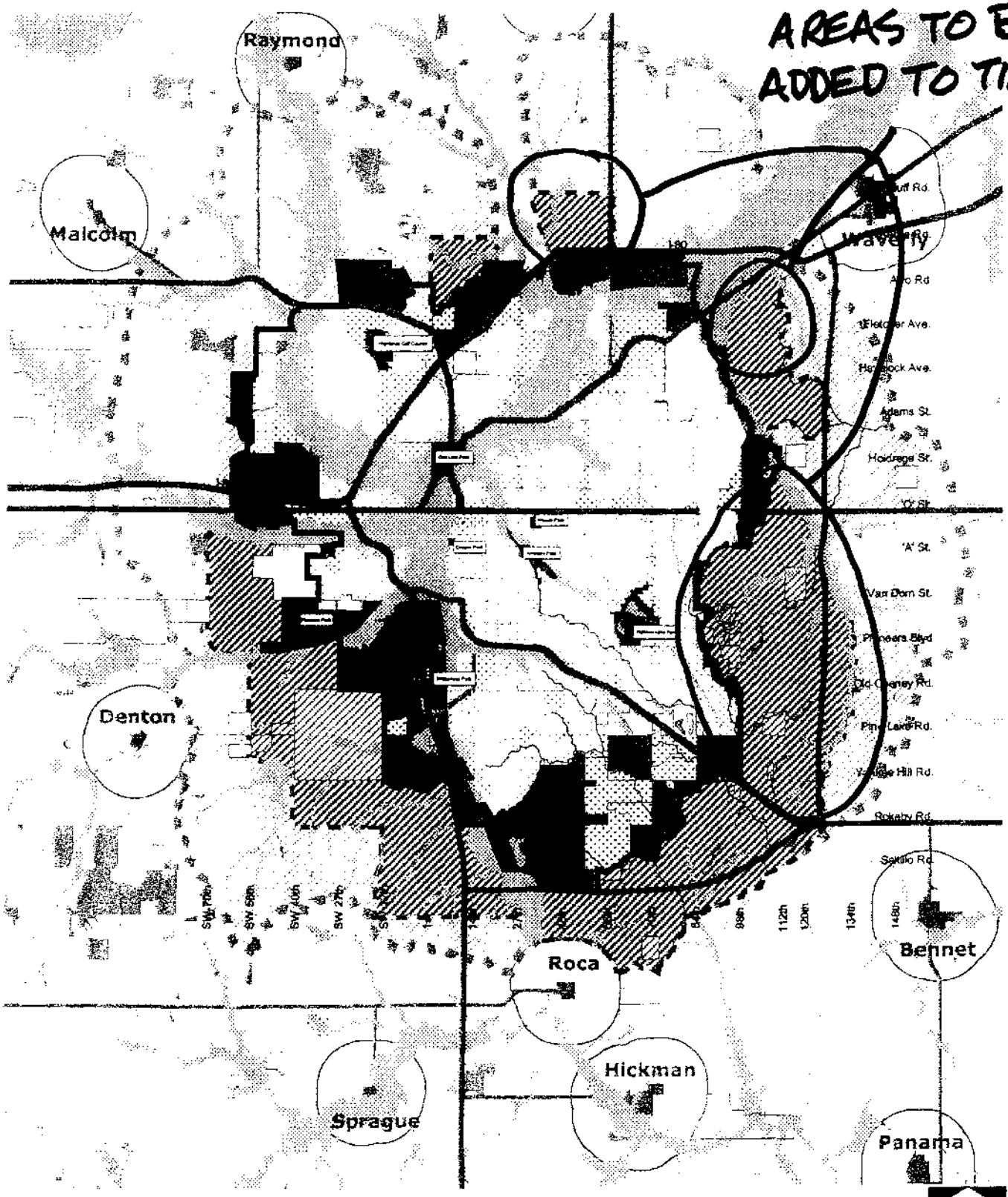
Submitted on behalf of
Home Builders Association of Lincoln
and
Realtors Association of Lincoln

5. On page F20, amend the text as follows:

Prior to the section entitled "Residential Neighborhoods," add a new section:

Affordable Housing

The costs of owning a home in our community must not be placed out of reach for the average worker and family. Teachers, firefighters, factory workers and even planners should be able to afford to buy a decent and safe home in Lincoln, Nebraska. Home ownership is the foundation upon which successful neighborhoods and communities are built. Implementation of this Plan shall take into account the financial impact any new policy or program will have upon the ability of the average worker to be able to afford to buy and maintain a home in our community.



Draft - CPC - Revised Nov. 2, 2001

Lincoln- Lancaster County Comprehensive Plan

Lincoln- Lancaster County, Nebraska

Nov. 2, 2001

PLAN VISION TIER I

PLAN VISION TIER II

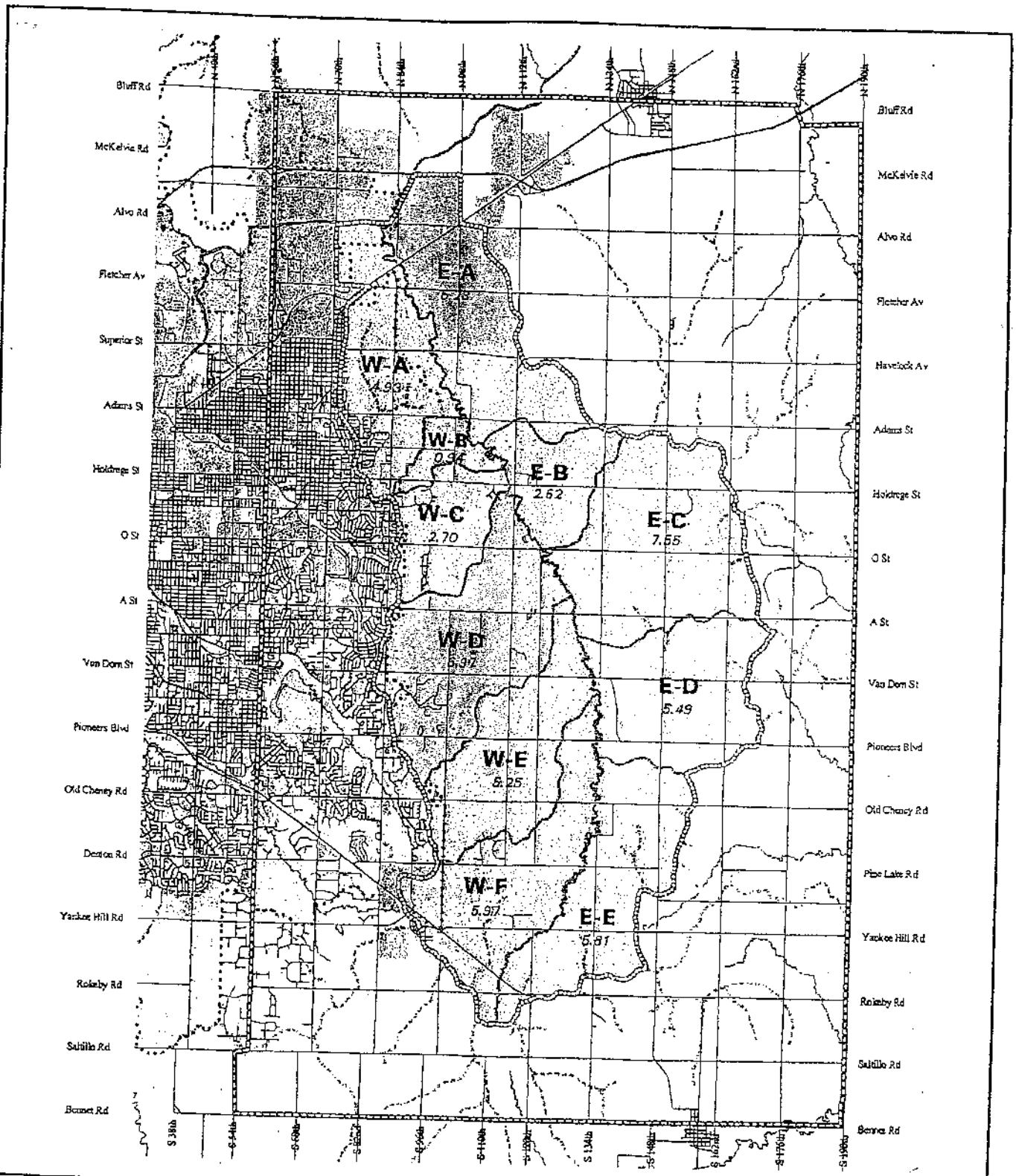
PLAN VISION TIER III

ACREAGES

PROPOSED FUTURE SERVICE LIMIT

PRAIRIE

FLOODPLAIN



Stevens Creek Sub-Basins

Future Service Limit

Ridgelines

Streams

Stevens Creek Sub-Basins

W-A Zone Number & Sq. Miles

M I L E S

CENTER ON URBAN & METROPOLITAN POLICY

Who Sprawls Most? How Growth Patterns Differ Across the U.S.

William Fulton, Rolf Pendall, Mai Nguyen, and Alicia Harrison[1]

"Many of the results contained in this report challenge the conventional wisdom about metropolitan densities and sprawl in the United States."

Findings

An analysis of the density trends in every metropolitan area in the United States between 1982 and 1997 reveals:

- **Most metropolitan areas in the United States are adding urbanized land at a much faster rate than they are adding population.** Between 1982 and 1997, the amount of urbanized land in the United States increased by 47 percent, from approximately 51 million acres in 1982 to approximately 76 million acres in 1997. During this same period, the nation's population grew by only 17 percent. Of the 281 metropolitan areas included in this report, only 17 (6.0 percent) became more dense.

- **The West is home to some of the densest metropolitan areas in the nation.** In 1997, ten of the 15 densest metropolitan areas in the nation were located in California, Nevada, and Arizona. The South is accommodating a great deal of population growth but is urbanizing a large amount of previously non-urban land to do so, while in the Northeast and Midwest, slow-growing metropolitan areas have consumed extremely large amounts of land for urbanization in order to accommodate very small quantities of population growth.

- **Metropolitan areas tend to consume less land for urbanization—relative to population growth—when they are growing rapidly in population, rely heavily on public water and sewer systems, and have high levels of immigrant residents.** Our analysis revealed that fast-growing regions urbanize far less land per new resident than slow-growing or declining ones. Regions are less likely to consume large amounts of land (relative to population growth) if they have more immigrants—this finding was one of the strongest and most consistent relationships we found, both at one point in time (1997) and as a change over time (1982-97).

- **Metropolitan areas tend to consume more land for urbanization—again, relative to population growth—if they are already high-density metro areas and if they have fragmented local governments.** Regions that were very dense in 1982 tended to urbanize more land in relation to population growth. That is, a region that was dense already had a harder time retaining its density during this period. We also found that regions with fragmented local government structures urbanized more land to accommodate population growth.

"The most important conclusion this report draws is that metropolitan areas in different parts of the country are growing in different ways."

I. Introduction

This paper measures recent trends in how rapidly American metropolitan areas are consuming land for urbanization in order to accommodate a changing population. It is the first national study to measure the consumption of land for urbanization in comparison to population growth for every metropolitan area in the United States. Our report includes both an exploration of density and density change in the U.S. and an explanation of the differences among metropolitan areas.

We calculate the density of every metropolitan area in the United States between 1982 and 1997 and analyze the resulting trends. Density is defined as the population (estimated from the decennial census) divided by the urbanized land (derived from the National Resources Inventory's national survey of land use, conducted every five years.) Thus, this is the first nationwide study that analyzes metropolitan density based on an actual measurement of urbanized land, rather than the Census Bureau's definition of "urbanized area," which does not measure actual land use.

In general, we find that, in percentage terms, most metropolitan areas are consuming land for urbanization much more rapidly than they are adding population. In that sense, most U.S. metro areas are "sprawling" more rapidly today than they have in the past. That fact is generally known. However, many of the results contained in this report challenge the conventional wisdom about metropolitan densities and sprawl in the United States.

For example, this report finds that many of the densest metropolitan areas in the United States are located in the West—most specifically, in California, Arizona, and Nevada. Meanwhile, the older metropolitan areas of the Northeast and Midwest—while their underlying densities are high by national standards—are sprawling far worse than their counterparts elsewhere in the nation.

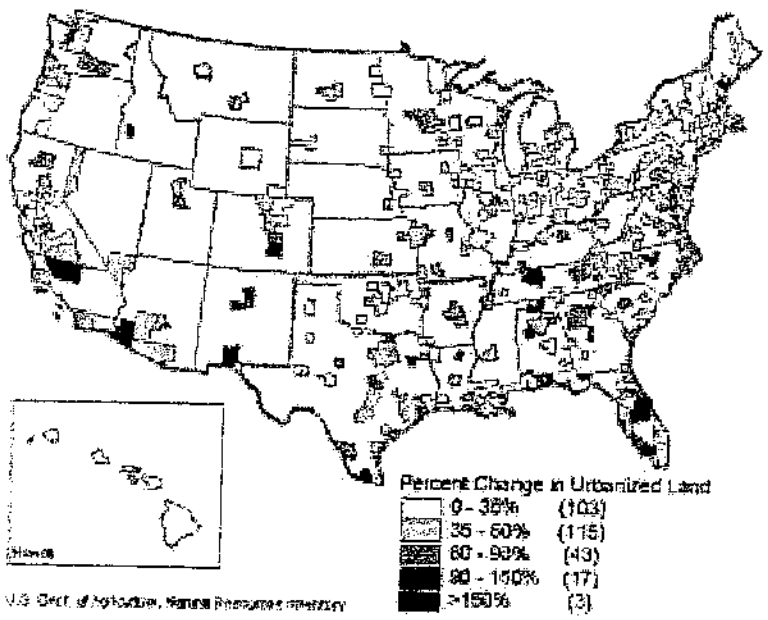
These results challenge the conventional wisdom, which believes that Western cities are sprawling because they are auto-oriented, and older Northeastern and Midwestern cities are dense because they are dense in the aging core. In some sense, the conventional wisdom is correct. Western cities are auto oriented—that is, they do not have extremely dense old cores and they are built at densities that make it difficult to provide public transit alternatives. And in the Northeast and Midwest, older core areas continue to function at very high densities by national standards. They contain densely developed neighborhoods and business districts, and they often include a very high level of public transportation riders compared to national averages.

But at the scale of the metropolitan area, the conventional wisdom is wrong—at least so far as consumption of land for urbanization is concerned.

Metropolitan areas in the Northeast and Midwest are consuming land at a much greater rate than they are adding population, and so their "marginal" density is extremely low. (Although they are adding population, Southern metro areas also have low marginal densities.) At the same time, the auto-oriented metropolitan areas of the West have overall metropolitan densities that are comparable to those in the Northeast and the Midwest. Furthermore, they are currently growing at much higher densities than their counterparts anywhere else in the nation. In that sense, the Western metro areas—whatever else their characteristics may be—are using less land to accommodate population growth than metro areas in any other part of the nation.

In reviewing these results it is important to understand that this report seeks to measure sprawl in terms of consumption of land

Map 1
Percent Change in Urbanized Land, MSAs and CMSAs, 1982–1997



resources only. The most important conclusion this report draws is that metropolitan areas in different parts of the country are growing in different ways. There is no single problem of "sprawl" in the United States today, and there is no single solution. Rather, the problems associated with metropolitan growth throughout the nation are characterized by regional differences, and policy responses should be different as well.

II. Definitions and Methods

A. "Sprawl" as a measurement of land consumed for urbanization

"Sprawl" is an elusive term. To paraphrase the United States Supreme Court's long-ago ruling on pornography, most people can't define sprawl—but they know it when they see it. To some, it means a pattern of auto-oriented suburban development. To others, it means low-density residential subdivisions on the metropolitan fringe. To many—especially in the popular press—it is simply a catch-all term that refers to any kind of suburban-style growth, whether driven by population increase or not.

Our method of defining sprawl is to characterize it simply in terms of land resources consumed to accommodate new urbanization. If land is being consumed at a faster rate than population growth, then a metropolitan area can be characterized as "sprawling." If population is growing more rapidly than land is being consumed for urbanization, then a metropolitan area can be characterized as "densifying."

This definition is not perfect by any means, simply because sprawl has so many different meanings. But it does provide a useful baseline of sprawl as it relates to the land resources of our nation and its metropolitan areas. By using this simple and comprehensive definition, information about metropolitan densities can provide a rudimentary understanding of sprawling patterns of urbanization and how they affect the consumption and use of land.

B. "Density" as a measurement of land consumption and population growth

In this report, we measure the relationship between population and urbanized land in terms of what we call a metropolitan area's "density." We define "density" as the population of a metropolitan area divided by the amount of urbanized land in that metropolitan area. In addition to reporting on density trends in 281 of the 282 U.S. metro areas (all but Anchorage, Alaska) between 1982 and 1997, we also report on overall trends in land urbanization and sometimes describe the trends by comparing the percentage increase in population and the percentage increase in urbanized land (simply a different way of expressing the same data contained in our calculation of "density").

It is important to note that our measurement here is not simply a measurement of residential density (as so often occurs in the sprawl debate) but, rather, a measurement of overall density based on all the land—residential, commercial, industrial, roads and highways, urban parks, and so forth—urbanized in order to accommodate population growth.

C. Using an actual measurement of land consumption to measure sprawl and density

Furthermore, this report differs from other analyses of metropolitan densities by calculating densities based on an actual measurement of urbanized land, rather than a measurement of population density.

Most similar analyses have used the U.S. Census Bureau's definition of "urbanized area" as the denominator in calculating urban or metropolitan densities. But the Census "urbanized area" is not a measurement of actual land use or the conversion of land. Rather, it is a measurement of popula-

tion density. Any area with a population density of 1,000 persons per square mile—that is, 1,000 persons for every 640 acres—is considered urbanized. This definition overlooks low-density suburbs, as well as areas that may accommodate urbanized land uses but not residents.

This report is based on a national survey that measures the actual use of land, rather than population density. That survey, the National Resources Inventory (NRI), is conducted by the U.S. Department of Agriculture every five years, most recently in 1997. The NRI estimates the amount of urbanized land in every county in the United States outside Alaska. By aggregating this data, we can obtain reasonable estimates of urbanized land in 281 of the 282 metropolitan areas (all but Anchorage) as defined by the Census Bureau for the years 1982, 1987, 1992, and 1997. To calibrate the populations of metropolitan areas to the urbanized land estimates, we interpolated a population estimate for each metropolitan area from the decennial censuses in 1980, 1990, and 2000. We also used multiple regression to explore predictors of density, density change and urbanization.

A more detailed discussion of our methodology can be found in Appendix A.

III. Findings

A. Most metropolitan areas in the United States are adding urbanized land at a much faster rate than they are adding population.

Between 1982 and 1997, the amount of urbanized land in the United States increased by 47 percent, from approximately 51 million acres in 1982 to approximately 76 million acres in 1997. During this same period, the nation's population grew by only 17 percent.

In the five-year intervals during this period, the nation's consumption of land for urban use went up. Between

Table 1: Fastest and Slowest Growing Metropolitan Areas, by Percent Change in Urbanized Land, 1982-1997

Fastest Urbanizing Metropolitan Areas

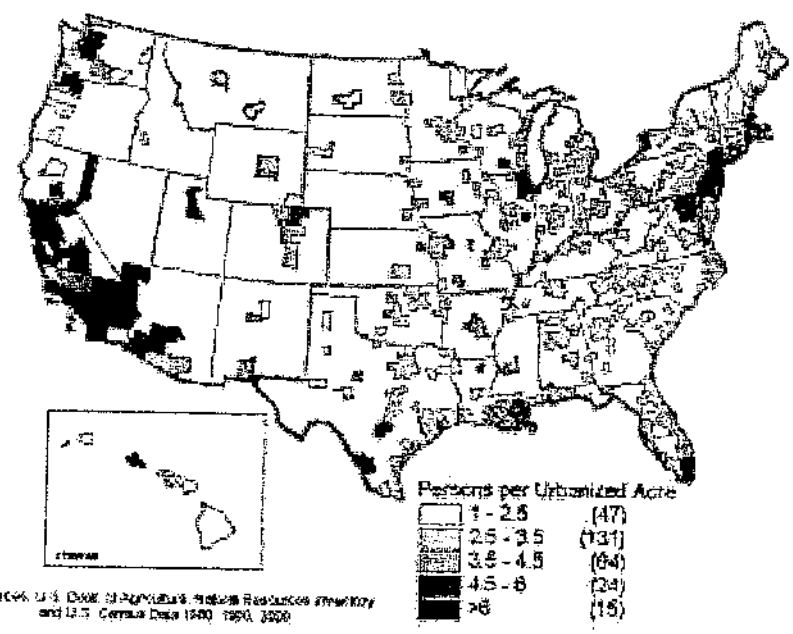
Rank		Increase in Urbanized Land
1	Las Cruces, NM*	784.9%
2	Pueblo, CO*	763.9%
3	Naples, FL	153.3%
4	Decatur, AL	139.1%
5	Yuma, AZ	130.4%
6	Bakersfield, CA	123.6%
7	Macon-Warner Robins, GA	119.6%
8	Boise City, ID	112.4%
9	Portland, ME	108.4%
10	Fort Walton Beach, FL	106.6%
11	Nashville, TN	103.0%
12	Tuscaloosa, AL	101.7%
13	Athens, GA	101.6%
14	Huntsville, AL	99.5%
15	Tyler, TX	97.0%
16	McAllen-Edinburg-Mission, TX	97.0%
17	Raleigh-Durham, NC	93.8%
18	Tallahassee, FL	92.8%
19	Lakeland-Winter Haven, FL	92.6%
20	Orlando, FL	92.2%

Slowest Urbanizing Metropolitan Areas

Rank		Increase in Urbanized Land
1	Grand Forks, ND	8.8%
2	Poughkeepsie, NY	10.0%
3	Davenport-Rock Island-Moline, IA-IL	10.5%
4	Dubuque, IA	11.3%
5	Texarkana, TX-Texarkana, AR	12.8%
6	Jamestown-Dunkirk, NY	13.0%
7	Lincoln, NE	13.0%
8	Anderson, IN	13.0%
9	Buffalo-Niagara Falls, NY	13.0%
10	Casper, WY	13.0%
11	Waterloo-Cedar Falls, IA	13.1%
12	Greeley, CO	13.9%
13	Sioux City, IA-NE	14.8%
14	Fargo-Moorhead, ND-MN	15.3%
15	Enid, OK	15.9%
16	Terre Haute, IN	16.4%
17	Great Falls, MT	17.1%
18	Battle Creek, MI	17.3%
19	La Crosse, WI	17.3%
20	Dayton-Springfield, OH	17.9%

**These extremely large increases may be due to a sampling error*

Map 2
Density, MSAs and CMSAs, 1997



1982 and 1987, the nation added approximately 6.1 million acres of urbanized land, an increase of 11.9 percent. Between 1987 and 1992, the nation added approximately 7.3 million acres of urbanized land, an increase of 12.6 percent. Between 1992 and 1997, the figure rose dramatically. During this last period, the nation added approximately 11 million acres of urbanized land, an increase of 16.7 percent.

The metropolitan density of the United States declined from 5.00 persons per urbanized acre in 1982 to 4.22 persons per urbanized acre in 1997—a decline of 0.78 persons per acre, or 15.7 percent. This decline increased during the 1990s; from 1992 to 1997, densities declined by 0.31 persons per acre, compared to 0.22 persons per acre in 1982-1987 and 0.26 persons per acre in 1987-1992. Density in non-metropolitan counties is dropping more rapidly than that in metropolitan areas. As a consequence, urban land density nationwide dropped by over 20 percent, from 4.46 to 3.55 persons per urbanized acre between 1982 and 1997.

Not surprisingly given this overall trend, the vast majority of metropolitan areas experienced a significant decline in metropolitan density and therefore can be described as sprawling. Of the 281 metropolitan areas included in this report, only 17 (6.0 percent) either increased in density or held steady.

Fast-growing metropolitan areas are, as one might expect, adding significant amounts of urbanized land. But many metropolitan areas that are among the leaders in land urbanization are not adding population rapidly—or are adding population much more slowly than they are adding urbanized land.

For example, among the top 25 metro areas in the nation in land urbanization between 1982 and 1997 were Philadelphia, Chicago, Detroit, Cleveland, Pittsburgh, Cincinnati, and St. Louis, all of which urbanized between 100,000 and 300,000 acres of land despite only slight increases, or even decreases, in population.

To be sure, some metro areas that added large amounts of population in a land-efficient way also urbanized large amounts of land. For example, Los Angeles urbanized more than 400,000 acres during this period, while Seattle and San Francisco urbanized more than 200,000 acres. But in these three cases, the percentage increase in population between 1982 and 1997 was almost the same as, or greater than, the percentage increase in urbanized land.

More typically, the biggest land urbanizers in the nation were fast-growing metropolitan areas that were adding large amounts of population in a land-hungry manner. Atlanta increased its population by 60 percent but increased its urbanized land by 80 percent, adding 571,000 acres of urbanized land between 1982 and 1997. Several other metro areas that ranked among the national leaders in new acres urbanized did, indeed, increase their population significantly, but the population growth did not keep pace with the urbanization of land. Among these metro areas were Minneapolis and Charlotte (almost 300,000 acres each), Nashville and Tampa (200,000 acres each), and Raleigh and Orlando (approximately 150,000 acres each).

B. The West is home to some of the densest metropolitan areas in the nation.

The most striking single finding of this report is the dramatic difference in metropolitan growth patterns in different regions of the country. Many metro areas in the West are continuing to "densify" or hold densities steady—meaning they are urbanizing land in an efficient manner while accommodating large amounts of population growth. Meanwhile, the South, with some exceptions, is urbanizing land at a somewhat faster rate than it is adding population (even though it is

adding population rapidly); the Northeastern and Midwestern metro areas are consuming large amounts of land for urbanization even though their populations are, for the most part, stagnant or growing slowly.

Of course, many older metro areas in the Northeast and Midwest still have high overall metropolitan densities by national standards. However, many metro areas in the West now have overall densities approximately equal to the older metro areas in the Northeast and Midwest. On a regional basis, the West's overall metropolitan density is approximately the same as that of the Northeast and is measurably higher than that of the Midwest. (For details on the density, change in population, and change in urbanized land for each census region and the metropolitan areas it contains, see Appendix B.)

The West: A growth pattern that runs counter to the national trend of decreasing densities

The West is experiencing a fundamentally different type of metropolitan growth than any other region of the country. Although much of the West is auto-oriented and characterized by single-family residential development, the region is consuming land far more efficiently than any other part of the nation. In 1997, the West as a region had the highest metropolitan density (4.85 persons per urbanized acre) of any region in the nation, exceeding even the average metropolitan density of the Northeast (4.51 persons per urbanized acre). Among the U.S. Census Bureau's subregions, the Pacific Coast (California, Hawaii, Oregon, and Washington) had by far the highest average density (5.76 persons per urbanized acre), significantly outstripping the Middle Atlantic States (New York, New Jersey, and Pennsylvania), which had an average metropolitan density of 4.54 persons per urbanized acre.

Between 1982 and 1997, the West's population increased by approximately

Table 2: Highest and Lowest Density Metropolitan Areas, 1997

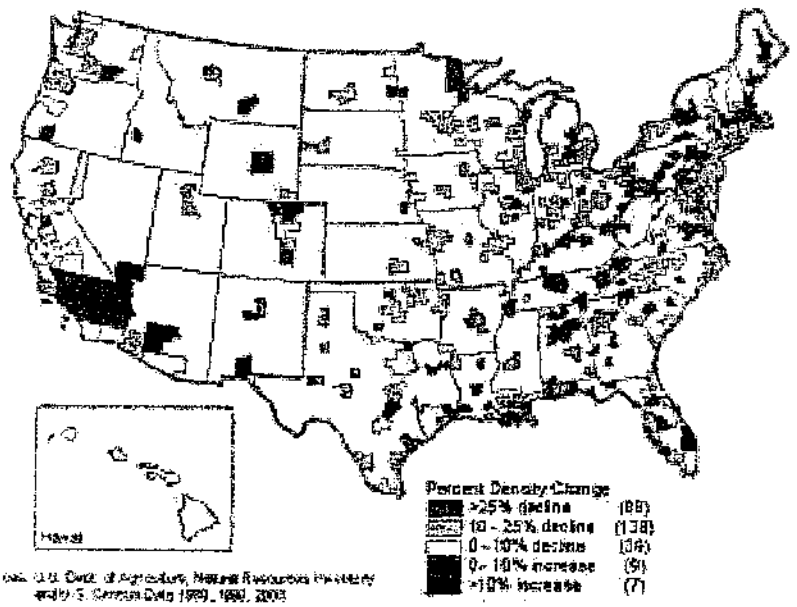
Highest Density Metropolitan Areas

Rank		Persons Per Urbanized Acre
1	Honolulu, HI	12.36
2	Los Angeles-Anaheim-Riverside, CA	8.31
3	New York-Northern New Jersey-Long Island, NY-NJ-CT	7.99
4	Reno, NV	7.99
5	San Francisco-Oakland-San Jose, CA	7.96
6	Miami-Fort Lauderdale, FL	7.93
7	Provo-Orem, UT	7.78
8	San Diego, CA	7.50
9	Visalia-Tulare-Porterville, CA	7.39
10	Modesto, CA	7.31
11	Phoenix, AZ	7.20
12	Salinas-Seaside-Monterey, CA	7.08
13	Stockton, CA	6.82
14	Las Vegas, NV	6.67
15	Chicago-Gary-Lake County, IL-IN-WI	6.02
16	Providence-Pawtucket-Woonsocket, RI	5.93
17	Washington, DC-MD-VA	5.88
18	Buffalo-Niagara Falls, NY	5.74
19	Boston-Lawrence-Salem-Lowell-Brockton, MA	5.65
20	Santa Barbara-Santa Maria-Lompoc, CA	5.65

Lowest Density Metropolitan Areas

Rank		Persons Per Urbanized Acre
1	Ocala, FL	1.23
2	Hickory-Morganton, NC	1.55
3	Beaumont-Port Arthur, TX	1.65
4	Midland, TX	1.67
5	Santa Fe, NM	1.68
6	Cheyenne, WY	1.70
7	Texarkana, TX-Texarkana, AR	1.74
8	Victoria, TX	1.74
9	Anderson, SC	1.75
10	Rapid City, SD	1.76
11	Odessa, TX	1.76
12	Decatur, AL	1.77
13	Redding, CA	1.82
14	Richland-Kennewick-Pasco, WA	1.90
15	Biloxi-Gulfport, MS	1.90
16	Sherman-Denison, TX	1.91
17	Tyler, TX	1.99
18	Billings, MT	2.01
19	Panama City, FL	2.02
20	Fort Myers-Cape Coral, FL	2.03

Map 3
Percent Change in Density, MSAs and CMSAs, 1982–1997



32 percent (14.4 million people), but the region increased its stock of urbanized land by only about 49 percent (4 million acres), for a "marginal" metropolitan density during this period of 3.59 persons per urbanized acre. This was more than triple the marginal metropolitan density of any other region. All other regions of the country—the Northeast, the Midwest, and the South—added approximately one acre of urbanized land for every resident added (See Figure 1).

We will discuss the reasons why the West has a different growth pattern in more detail below. However, it is worth noting that most metropolitan areas in the Western United States are hemmed in by mountains and other topographical constraints and usually by federal land ownership as well. The region's heavy reliance on public water and sewer systems is another important density-inducing factor. Still another factor may be production homebuilding practices throughout California and the desert Southwest, which encourage master-planned developments at fairly high densities compared with new suburban development elsewhere in the nation.

Metropolitan density in the Western United States is especially notable in three geographical areas—the California coast, California's Central Valley, and the desert states of Nevada and Arizona.

California, Arizona, and Nevada were home to ten of the 15 most densely populated metropolitan areas in the United States in 1997. Honolulu (12.36 persons per urbanized acre) was the densest metropolitan area,[2] the Los Angeles Consolidated Metropolitan Statistical Area (CMSA) ranked second at 8.31 persons per acre, and the New York CMSA ranked third (7.99 persons per urbanized acre). Four California coastal metro areas ranked in the top 12: Los Angeles, San Francisco (fifth), San Diego (eighth), and Salinas-Monterey (12th). Three metro areas in California's agricultural Central Valley also ranked in the top 15: Visalia (ninth), Modesto (tenth), and Stockton (13th). All had densities of at least 6.82 persons per acre in 1997. Reno ranked fourth, Phoenix ranked 11th, and Las Vegas ranked 14th.

Examining metropolitan density increases during this period, Las Vegas led the nation with an increase in its metropolitan density of 50 percent, thus rising in the overall density rankings from 114th in 1982 to 14th in 1997. Phoenix ranked third in density gains during this period. Also during this period, metropolitan Los Angeles closed the gap with metropolitan New York considerably. In 1982, metropolitan Los Angeles had 8.09 persons per urbanized acre—roughly 17 percent behind New York (9.44 persons per acre). However, during the next 15 years, metro New York's density dropped by almost 1.5 persons per acre (a 14.7 percent drop overall), while metro L.A.'s rose slightly. Thus, by 1997, Los Angeles was denser than New York; their densities were 8.31 and 7.99, respectively.

Other metropolitan areas in the West—especially smaller ones—sprawled more noticeably during this period. Portland and Seattle had metropolitan densities of 5.10 persons per urbanized acre in 1997—high by national standards, but much lower than the Southwestern cities. Metropolitan density in both metro areas dropped by approximately 11 percent during the 15-year period—which is not much of a slide by national standards but more than that of the Southwestern cities.

Smaller metro areas experienced considerable sprawl during the 1982–97 period, especially Boise, Idaho; Las Cruces, N.M.; Pueblo, Colorado; and Yuma, Arizona.[3]

The South: Growing in population but sprawling as well

With a few exceptions, metropolitan areas in the South are consuming large amounts of land in order to accommodate large amounts of

population growth.

As a region, the South added 17.2 million people between 1982 and 1997—20 percent more than did the West, which added 14.4 million people. But the South consumed three times as much land to accommodate this population growth—increasing its stock of urbanized land by almost 12.5 million acres, compared to an increase of only 4.1 million acres in the West. In density terms, the West averaged 3.59 new residents for every new urbanized acre, compared to only 1.37 for the South.

For example, Nashville increased its metropolitan population by 289,000 people between 1982 and 1997—an increase of approximately 33 percent. But the amount of urbanized land in Nashville increased by 216,000 acres—a rise of more than 100 percent. In other words, Nashville urbanized an average of almost one acre of land to accommodate each additional resident of the metropolitan region. Many other Southern metropolitan areas experienced a similar ratio of population growth to increase in urbanized land, including Huntsville, Alabama; Fort Walton Beach, Florida; Athens, Georgia; Columbia, South Carolina; and Asheville, North Carolina—all of which ranked in the top 25 nationally in the percentage increase in urbanized land.

Atlanta, which has become synonymous with sprawl in the last few years, had the largest absolute (but not percentage) increase in urbanized land of any metropolitan area in the nation—approximately 571,000 acres. This figure was far ahead of New York, Dallas, Los Angeles, and Houston, which ranked second through fifth nationally, again, in terms of absolute rather than percentage gains. High as this figure is in raw numbers, however, it does not look extremely sprawling compared with other Southern metro areas. Atlanta added approximately 1.3 million persons during this period,

Table 3: Greatest Percentage Gains and Losses in Metropolitan Area Density, 1982-1997

Metropolitan Areas with Greatest Density Gain

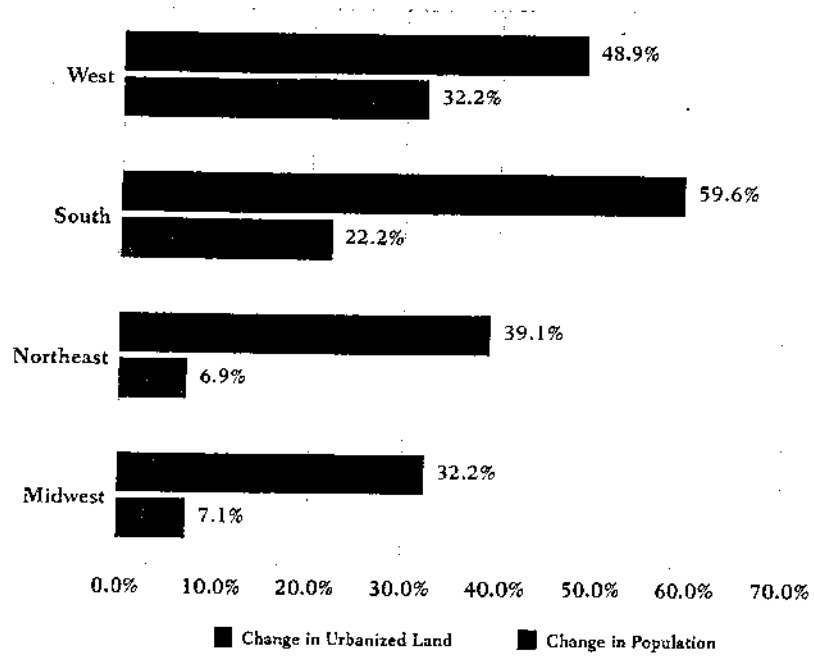
Rank		Density Change
1	Las Vegas, NV	50.8%
2	Fort Pierce, FL	29.9%
3	Phoenix, AZ	21.9%
4	Greeley, CO	16.1%
5	Austin, TX	16.0%
6	Fort Myers-Cape Coral, FL	15.2%
7	West Palm Beach-Boca Raton-Delray Beach, FL	10.4%
8	Ocala, FL	8.1%
9	Lincoln, NE	7.2%
10	Fort Collins-Loveland, CO	5.5%
11	Fargo-Moorhead, ND-MN	3.9%
12	Sarasota, FL	3.4%
13	Stockton, CA	2.8%
14	Los Angeles-Anaheim-Riverside, CA	2.8%
15	Medford, OR	2.0%
16	Poughkeepsie, NY	1.0%
17	Reno, NV	0.0%
18	Visalia-Tulare-Porterville, CA	-0.1%
19	Fresno, CA	-0.2%
20	Salinas-Seaside-Monterey, CA	-1.3%

Metropolitan Areas with Greatest Density Loss

Rank		Density Change
1	Pueblo, CO*	-87.44%
2	Las Cruces, NM*	-82.20%
3	Decatur, AL	-51.10%
4	Macon-Warner Robins, GA	-48.64%
5	Anniston, AL	-45.91%
6	Portland, ME	-43.65%
7	Tuscaloosa, AL	-42.12%
8	Charleston, WV	-41.22%
9	Longview-Marshall, TX	-41.05%
10	Johnstown, PA	-40.81%
11	Muncie, IN	-38.22%
12	Tyler, TX	-38.01%
13	Sharon, PA	-37.87%
14	Steubenville-Weirton, OH-WV	-37.35%
15	Asheville, NC	-35.83%
16	Wheeling, WV-OH	-35.58%
17	Utica-Rome, NY	-35.51%
18	Pittsburgh-Beaver Valley, PA	-35.50%
19	Bakersfield, CA	-35.43%
20	Huntsville, AL	-34.39%

**These large decreases may be due to a sampling error.*

Figure 1: Percent Change in Population and Urbanized Land, 1982-1997, by Census Region



meaning the region urbanized approximately one acre of land for every two new residents.

There were some exceptions to the pattern of Southern sprawl, especially in Texas and Florida. In Texas, the large metropolitan areas of Houston, Dallas, Austin, and San Antonio all are fairly dense by Southern standards (three persons or more per urbanized acre) and their densities did not decline much between 1982 and 1997. Austin was one of 17 metro areas that grew in density between 1982 and 1997, and the other three declined no more than 8.5 percent, ranking them among the national leaders in "holding" their densities. However, smaller Texas metropolitan areas such as Beaumont, Midland, Tyler, and Odessa rank among the least dense metropolitan areas in the nation, and most of them declined noticeably during the 1982–1997 period.

Florida metro areas varied dramatically in both their density and their density change. Metropolitan Miami has always been densely developed. During the 1982-1997 period it retained its density and in 1997 ranked sixth nationally with a density of 7.93 persons per urbanized acre. Fast-growing Orlando began with a lower density but used land efficiently by Southern standards, increasing its population by 560,000 while urbanizing approximately 150,000 acres of land. Tampa-St. Petersburg had similar figures.

Many smaller metropolitan areas in Florida also experienced density increases during this period. However, these metro areas were extremely sprawling to begin with. For example, Ocala, Florida, increased in density between 1982 and 1997. However, at the end of this 15-year period, it still ranked dead last among all 281 U.S. metro areas in metropolitan density, with 1.23 persons per urbanized acre.

The Northeast and the Midwest: Enormous land consumption, little population growth

Unlike the West and the South, the Northeast and the Midwest are not increasing their populations very much. However, they are urbanizing large amounts of land anyway. In that sense, these two "Rust Belt" regions can be viewed as being the nation's biggest sprawl problems.

Between 1982 and 1997, the Northeast saw its overall population density drop by 23 percent (to 4.51 persons per urbanized acre) while the Midwest saw its overall population density drop by 19 percent (to 3.39 persons per acre). These regions used land extremely inefficiently. Population in the Northeast increased by 3.4 million people, but its total amount of urbanized land grew by 3.2 million acres—meaning that the region urbanized an average of one acre to accommodate each new resident. In the Midwest, the figures were slightly worse: The region increased its population by 4.1 million people but increased its urbanized land by 4.5 million acres, for a "marginal metropolitan density" of 0.91 persons per acre.

Most metropolitan areas in the Northeast and Midwest added few people but consumed a considerable amount of land. Of the 179 metropolitan areas that experienced slow or no population growth between 1982 and 1997, 117 of them (65 percent) were located in Northeastern and Midwestern states. Boston, for example, grew in population by 6.7 percent but increased its stock of urbanized land by almost half (46.9 percent).

Fifty-six metro areas lost population from 1982 to 1997. Virtually all of them were in the Northeast and Midwest. Every single one of these metro areas increased their total amount of urban land by at least 8 percent.

Half of the metropolitan areas that lost population increased their total amount of urban land by at least 25 percent. Many of these metro areas were in the "Rust Belt" of the Northeast and Midwest. Pittsburgh, for example, dropped 8 percent in population but increased its urbanized land by 42 percent. Steubenville, Ohio, and Wheeling, West Virginia (both of which are near Pittsburgh) dropped in population by approximately 15 percent but saw their urbanized land increase by approximately one-third.

Even those few metropolitan areas in the Northeast and Midwest that did increase their population significantly also sprawled measurably. For example, Minneapolis-St. Paul increased in population by 550,000 persons, or 25 percent. However, it increased its stock of urbanized land by 270,000 acres, or approximately 61 percent. As a result of this "marginal" density of two persons per acre, the region's overall metropolitan density dropped 22 percent, from 4.96 to 3.85 persons per urbanized acre. Another thriving Midwestern city, Columbus, Ohio, recorded somewhat similar statistics, though it did not grow as much. And Portland, Maine, had high population growth by Northeastern standards (17 percent), yet increased its urbanized land by 108 percent—more than five times the percentage increase in population.

However, even with these dramatic declines in density, the older industrial metropolises remained among the densest in the nation even in 1997. New York recorded a density of 7.99, Buffalo 5.74, and Philadelphia 5.03.

C. Metropolitan areas tend to consume less land for urbanization—relative to population growth—when they are growing rapidly in population, rely heavily on public water and sewer systems, and have high levels of immigrant residents. Metropolitan areas tend to consume more land for urbanization—again relative to population growth—if they are already high-density metro areas and if they have fragmented local governments.

Going beyond our description of metropolitan areas, we also explored how density and urbanization relate to factors other than population growth, such as metropolitan area population, demography, economics, physical geography, infrastructure, planning environment, and fiscal structure. As we showed in the previous section, metropolitan areas that are rapidly gaining population have had a wide variety of increases in urbanized land, and metropolitan areas that had large increases in urbanized land did not necessarily do so because they were accommodating large population increases—some were not gaining new residents at all. Other factors, then, must be responsible for the variation we observe among metropolitan areas.

We began with a long list of characteristics we thought might be associated consistently with density, based on literature reviews and our own experience (see Appendix C). Many of these variables are correlated with one another, however, and the large number of variables that would be insignificant in any analysis would create "noise" if they remained in the statistical analysis. We therefore used a technique called backward stepwise regression, which begins by including all the variables in an equation and sequentially removes one variable at a time based on its failure to explain differences in metropolitan density, re-running the analysis at each step. In all cases, these relationships are true "all else being equal"; for example, if we hold growth rates, immigration, Hispanic shares, and other variables constant, more populous metropolitan areas tend to be denser.

Although we found that many of the same variables associated with both density differences in 1997 and density change between 1982 and 1997, other variables had effects that differed between the two. We also analyzed percent change in urbanized land, and found mostly consistent results.

Eleven variables associated significantly[4] with the regional density variable (see Table 4). Twelve variables explain density change between 1982 and 1997 (see Table 5); and nine associate with variation in percent change in urbanized land (see Table 6). The factors that we discuss cannot be said to "cause" density differences; many of them may in fact be consequences of high or low density. (For regression coefficients, significance levels, and case studies that explain how these variables play out in five metropolitan areas, see www.brookings.edu/urban/fulton-pendall.)

Population and historic conditions have strong influences on density, sprawl, and urbanization.

Faster-growing metropolitan areas tend to be less dense, holding population size constant. They also urbanize more land than slow-growing metropolitan areas. Yet, at the same time, they tend to sprawl less.

This finding gets at the heart of two different ways to think about sprawl: is it based on current density, or a change in urbanized area compared to population? When we hold constant the population size, metropolitan areas that grew fast between 1982 and 1997 tended to have lower density in 1997. And in our analysis of differences in percent change in urban land, we found that—all else being equal—fast-growth metropolitan areas urbanized more land than did slow-growth regions. Additionally, high-density metros tended to urbanize more land than low-density metros between 1982 and 1987.

Does this mean that population growth caused these metropolitan areas to sprawl? No. In fact, fast-growing metro areas lost less density between 1982 and 1997 than did slow-growing ones. Metropolitan areas

Table 4: Regional characteristics that associate with differences in density, 1997

Low density regions	High density regions
Lower population	Higher population
Fast growth	Slow growth
Few foreign born residents	Many foreign born residents
More Hispanic residents	Fewer Hispanic residents
High dependence on local revenue sources for education	High dependence on state, regional sources for education
Fewer houses are on sewers	More houses are on sewers
Adjacent to at least one rural county	Surrounded by other regions, coast, or foreign country
Flat land	Large areas over 15 percent slope
Little or no wetland	Substantial wetlands
Most land owned by private owners	Much land owned by government
Little prime farmland	Much prime farmland

that were dense in 1982 were likely, all else being equal, to sprawl more between 1982 and 1997 than those that started out with lower densities. But in the West, fast growth—which discourages sprawl—often counteracted the sprawl-inducing effects of high initial density. In the Northeast, by contrast, most high-density metropolitan areas grew much more slowly than those in the West. Since both high density and slow growth induce sprawl, the Northeast sprawled more than the West.

Together, the analyses of density change and urbanization paint a complicated picture. Fast-growth metropolitan areas urbanize more land, but do so at higher densities, than slow-growing ones; high-density metropolitan areas tend to lose more density, and urbanize more rapidly, than low-density ones.

Low-density metropolitan areas may be growing fast because their per-acre land values are lower than in high-density metros, or low density may be an indicator of other characteristics that make these places more attractive for growth and development. At the same time, metropolitan areas that lose population, or that grow slowly, tend to develop at lower densities than do the rapidly growing metros. One explanation for this is that people are competing with each other for land more intensively in metros where population is growing fast. This competition will drive land prices up, thereby encouraging developers to make more efficient use of land—that is, to build at higher densities.

More populous metropolitan areas tend to be denser.
New York, Los Angeles, and Chicago are dense partly because they have large populations. Aggregations of people create "agglomeration economies" that place more value on proximity. With more value on proximity, land values rise, and density increases.

Demographic characteristics also exert strong influences.
Metropolitan areas with large shares of foreign-born residents had much higher densities in 1997, and sprawled less from 1982 to 1997.
We need to explore the dynamics of immigration and density in more detail, but they do seem to be strongly connected. In fact, the single most important variable in explaining differences among metro areas' density change from 1982 to 1997 was the share of 1990 residents who were born abroad.

A lack of immigrants may help explain Atlanta's sprawl; only 4.1 percent of its residents were foreign-born in 1990, compared with 13.3 percent in Houston. The difference between the foreign-born composition of these two metro areas would add up to a 12-percentage-point difference in density change, with Houston gaining 17.3 percent in density between 1982 and 1997 by virtue of its immigrant composition, compared with only a 5.3 percent rise in Atlanta. This finding provides very strong evidence that efforts by anti-immigration groups to link sprawl with immigration are misguided. Instead, immigration seems to be good for density and to mitigate other factors that lead to sprawl. Metropolitan areas with fewer foreign-born residents also had higher percent changes in urbanization, holding all else constant, than those with more foreign-born residents.

Metropolitan areas with high shares of Hispanic and black residents sprawl more; those with high shares of Hispanics had lower density in 1997.
We have already seen that many of the fastest-sprawling metro areas are in the South outside Florida. Some of these metro areas—for example, Albany, Georgia; Pine Bluff, Arkansas; Memphis, Tennessee; and Montgomery, Alabama—also have among the highest concentrations of black

Table 5: Regional characteristics that associate with differences in density change, 1982-1997

Rapid density loss	Density gain (or less rapid loss)
High density	Low density
Less urban land	More urban land
Slow growth	Fast growth
Few foreign born residents	Many foreign born residents
More Hispanic residents	Fewer Hispanic residents
More black residents	Fewer black residents
Fewer elderly residents	More elderly residents
Smaller local governments	Larger local governments
States require growth management	States do not require growth management
Fewer houses on sewers	More houses on sewers
More houses on public water	Fewer houses on public water
Less prime farmland	More prime farmland

Table 6: Regional characteristics that associate with differences in urbanization, 1982-1997

Urbanized more land	Urbanized less land
Fast growth	Slow growth
High density	Low density
Fewer elderly residents	More elderly residents
Fewer foreign-born residents	More foreign-born residents
More Hispanic residents	Fewer Hispanic residents
States require growth management	States do not require growth management
Highways constitute lower share of budget	Highways constitute higher share of budget
Fewer houses on sewers	More houses on sewers
More houses on public water	Fewer houses on public water

residents in the nation, and most also have very small foreign-born populations. Perhaps because of a combination of white flight with no compensating foreign immigration, these metropolitan areas lost density rapidly between 1982 and 1997.

Metropolitan areas with many native-born Hispanic residents sprawl more than those without as many native-born Hispanics, all else being equal; whether this is a result of white flight or because native-born Hispanics are acculturating and joining in the move to lower-density neighborhoods is an issue that requires more detailed research. Few metropolitan areas with high shares of Hispanic residents do not also have high shares of immigrants; these are two counterbalancing forces whose joint effects will differ from one metro area to another. We found broadly consistent results in the analysis of both percent change in urbanized land and density change between 1982 and 1997.

A telling example compares Corpus Christi, Texas, to Miami. Holding all other factors equal, both metropolitan areas lost 20 percent in density owing to the effect of being about 50 percent Hispanic in 1990. But whereas about 5 percent of Corpus Christi's residents were foreign born, 45 percent of Miami's were born abroad. Corpus Christi made up only 6 percent of the density decrease with its foreign-born composition, whereas Miami's foreign-born residents give it nearly a 60 percent boost in density—more than compensating for the isolated effect of its Hispanic population.

Metropolitan areas with more elderly residents sprawled less. Metropolitan areas with more elderly residents lost less density between 1982 and 1997 than those with higher shares of young or middle-aged residents, perhaps because elderly residents often tend to live at higher densities than larger families and households. Also, there are life-cycle factors (e.g., having children) that motivate young or middle-age residents to choose single-family suburban (less dense) residences.

Infrastructure endowments and finance also influence sprawl.

High-density metropolitan areas depend on sewers, not septic systems, and regions with a full complement of public infrastructure sprawl less.

Higher-density metropolitan areas tend to have higher shares of houses on sewers than those that are low-density. This relationship is probably mutually supportive; high-density metros require sewers, but sewers both enable higher density and promote it by raising land values where sewer is available. Ocala, Florida, is among the lowest-density metropolitan areas in the United States. Its infrastructure may help explain its low density in both 1982 and 1997—only 36 percent of its houses were connected to public sewers. Although Ocala's density grew by about 8 percent between 1982 and 1997, that growth was not enough to move Ocala from last place in the density rankings nation-wide. And Glens Falls, New York, which started out with moderate density, lost substantial density thanks to its last-in-the-nation percent of households served by public sewers.

However, while public sewers associate with increasing density (or at least a slower rate of density decline), public water associated with faster density decline when we held constant other variables including the percent of houses on public sewers. The positive effect of sewers outweighs the negative one of public water, however. Metro areas with public sewers often tend also to have public water. The reverse is not true: it is much more common for more houses to have public water than to have sewers, because many local governments will provide public water without building sewers to avoid or correct groundwater pollution. These findings do not suggest that regions wishing to increase their density should promote public sewer but shun public water; they do, however, indicate that it may be counterproductive to provide public water without providing public sewer. Providing public water without providing sewers will likely promote lower-density development than not providing public water at all, perhaps because when public water is not provided to non-sewered areas, development tends to be attracted to areas that already have sewers.

Metropolitan areas whose school districts relied heavily on local revenue sources have lower densities.

One fiscal factor associated significantly with density in 1997: metropolitan areas in which local school districts derived most of their revenues from local sources tended to be lower in density than those where state and federal sources provided more revenues. Since so much local educational funding derives from the property tax, this finding reflects the role that the property tax plays in subsidizing public services from a broad base. It may also be an indirect indicator of the results of central city-suburban disparities in educational funding and tax rates. In states where local governments must provide most of the funding for education, central city school districts must often impose high tax rates because their schoolchildren have greater needs and because their residential assessed values tend to be lower than suburban values. Mobile residents often respond by moving to lower-tax suburbs. In future research we intend to develop a measure of central city-suburb tax disparity and explore its relationship with sprawl more directly.

Metropolitan areas whose local governments spent more of their budgets on highways urbanized less land.

Contrary to our expectations, we found that metropolitan areas in which highways constituted a higher share of local governments' budgets tended to urbanize less land than those where highways were a small share of the local budget. Local spending on highways was not a significant factor in either the density or the sprawl analysis; we plan additional research that will show how the total amount spent on highways per capita by all levels of government—federal, state, and local—affects sprawl. This will enable us to determine whether different levels of government spending have different sprawl effects.

Government organization, planning policies differ among sprawling and dense metropolitan areas.

Politically "fragmented" metropolitan areas sprawled more.

Metropolitan areas with myriad small local governments sprawl more than those with larger units of local government (city, township, and county). Many observers have attempted to link sprawl with municipal fragmentation. According to this logic, when metropolitan areas with the same population have very different numbers of local governments, the one with more local governments will have more sprawl. In such a situation, local governments compete more with one another to gain desirable land uses (retail and other non-polluting business uses that yield high property or sales taxes while demanding few services) and to avoid less desirable ones (high-density and affordable housing, which yields lower property taxes and demands more services, especially education).

Metropolitan areas in states with growth management sprawled more.

Ironically, our findings suggest that density dropped more rapidly in metropolitan areas in states with legislation requiring local governments to submit comprehensive growth plans to a state agency for review. It seems unlikely that growth management reduced density; rather, we suspect that states adopted growth management precisely because they were both growing rapidly and experiencing rapid density declines.

California, Nevada, and Arizona—

all states dominated by metropolitan areas that gained density between 1982 and 1997—do not have such growth management laws. Among states with growth management, only Florida had several metropolitan areas with rising or steady density. There are, however, at least two plausible scenarios in which growth management might promote lower density, both of them having to do with problems in carrying out well-designed growth management systems. In some areas, local governments must prepare plans that meet state or regional goals, but higher-level governments lack the clout to ensure that local plans meet the spirit and letter of the law and that municipalities implement their plans. The second scenario is the Florida case. The state requires that infrastructure be in place before growth is permitted, but it failed to fund new infrastructure in the late 1980s and 1990s. Hence new growth has bled into rural areas that had slack infrastructure capacity, largely because growth was foreclosed in suburban areas that had some land left for higher density development but not enough road capacity.

Geographic constraints and agricultural productivity slow sprawl.

Metropolitan areas that are geographically constrained tend to have higher densities.

Metros that are surrounded by either coastlines, an international border, or other metropolitan areas tend to be denser than those adjacent to at least one rural non-metropolitan county. Metropolitan areas in which more land is in areas with over 15 percent slope are also denser, as are those with more wetlands. Land ownership also makes a difference; metropolitan areas with higher shares of private land have lower densities than those where federal, state, or local governments control more land.

Metropolitan areas rich in prime farmland have higher densities than others, and sprawled less.

Agricultural productivity also influences density; metro areas with higher shares of prime farmland tend to be more densely developed than those with lower quality farmland, rangeland, or forest land. We suspect that the good soil quality encourages farmers to pay more for the land and to embrace measures that keep land in farming. It is true that prime farmland in metropolitan areas dropped from 76.4 million to 71.0 million acres, a 7.0 percent decline, but even so, metropolitan areas with more prime farmland lost less density than those with little prime land. Madison and Minneapolis-St. Paul are illustrative of this effect. These metropolitan areas are similar in many respects. They both grew about 25 percent in population between 1982 and 1997 and have similar low levels of foreign-born residents, blacks, and Hispanics. But Minneapolis's density fell 22 percent between 1982 and 1997, whereas Madison's only dropped 6 percent. Part of the reason for this, we suspect, is because 41 percent of the land in metropolitan Madison was prime farmland in 1982, compared with only 32 percent in Minneapolis-St. Paul.

IV. Case Studies

A. Los Angeles and New York

The Los Angeles and New York CMSAs are the two most populous metropolitan areas in the nation, with approximately 15 million and 18 million residents respectively.[5] Traditionally, New York has been viewed as more densely developed, while Los Angeles has been viewed as more low-density and auto-oriented. However, the reality is somewhat different. Although it is still extremely dense at its center, New York is sprawling dramatically on the edges. Meanwhile, although it is still auto-oriented, Los Angeles is "densifying" dramatically and is developing quite densely even at the fringe. As a result, the overall statistical profile of the two metropolitan areas looks quite similar at a gross scale.

In 1982, New York had a population of 17.5 million people occupying approximately 1.85 million urbanized acres, for an overall metropolitan density of 9.44 persons per urbanized acre. Though smaller and less dense, Los Angeles's profile was not dramatically different even then. In 1982, L.A. had a population of 12.1 million people using 1.49 million acres, for an overall metropolitan density of 8.09 persons per acre.

Over the next 15 years, however, these two metropolitan areas grew in very different patterns. New York added 1.13 million persons and urbanized 478,000 acres of land, for a marginal metropolitan density of 2.37 persons per acre, or less than one-third of its overall average in 1982. L.A. urbanized a little less land (412,000 acres) but increased its population by more than 3.7 million people—a marginal density of 9.12 persons per acre for the entire five-county CMSA. It was one of only 17 metro areas in the nation to increase overall density during this period.

At the end of the 15 years, New York and L.A. looked more alike than ever. New York had 18.6 million people using 2.33 million acres of urbanized land, for an overall metropolitan density of 7.99 persons per urbanized acre. Los Angeles had 15.8 million people using 1.90 million acres of urbanized land, for an overall metropolitan density of 8.31 persons per urbanized acre.

This comparison is useful in understanding how land is used and how population is accommodated. Like most Northeastern metropolitan areas, New York is expanding its urbanized area largely because of low-density suburban sprawl at the metropolitan fringe, though it is also adding population in existing urban areas via